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ECONOMICS OF
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ECONOMICS
OF
OUR PATENT SYSTEM

BY

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FOREWORD

The patent system has been bent to purposes and has facilitated results never intended or expected by the framers of the Constitution and the patent statutes. Patents have been exploited in defeating the object of the anti-trust laws. They have been used as the basis of pools which restrain trade. Corporations, by acquiring practically all patents relating to their respective industries, have obtained monopolies. Patents have been used as a pretext for engaging in unfair methods of competition. The utilization of patents in this manner has led to the suppression of many. Various evils connected with the patent system, though not necessarily a part of it, have actually discouraged invention. Lastly, these abuses have been accompanied by a waste of human and material resources. The social and economic cost of our patent system—industrial monopolies, suppression of patents, discouragement of invention, and economic waste—constitute a tremendous liability in appraising its net utility. This cost constitutes the subject matter of seven chapters of this book. The last chapter is devoted to the remedies for the situation.

A study of the economics of our patent system immediately raises controversial questions, to some of which no definite answers can be given. This statement applies particularly to the discussion of the causes of invention. It has seemed desirable in such instances to quote the opinions of economists, judges, inventors, patent lawyers, and others. In most cases an attempt has been made to criticize their opinions.

CONTENTS

CHAPTER I

BACKGROUND OF PROBLEM

PAGE
A. CAUSES OF INVENTION 1
  1. Instinct of contrivance 1
  2. Reputation 2
  3. Division of labor 3
  4. Intellectual inquiry 5
  5. Learning 6
  6. Divine inspiration 8
  7. Accident 9
  8. Economic conditions 10
  9. Economic reward 15
B. HISTORY OF PATENTS 16
  1. In England 16
  2. In the Colonies 19
  3. In the United States 22
C. SALIENT FEATURES OF PRESENT PATENT LAW 23
  1. Subject matter of patents 23
  2. Application 24
  3. Rights of patentee 25
  4. Relation of patent to competition 25
D. JUSTIFICATION OF PATENTS 27
  1. Disclosure of inventions 27
  2. Reward of inventor 28
  3. Development of invention 29
  4. Social welfare 31
E. CONCLUSION 32

CHAPTER II

PATENT POOLS

A. CLASSIFICATION 34
B. SEWING MACHINE 35
C. HARROW 36

PAGE
D. SEEDED RAISIN 39
E. RUBBER TIRE 40
F. WIND STACKER 43
G. LIQUID DOOR CHECK 46
H. BATH-TUB 49
I. MOTION PICTURES 52
J. RAILWAY DEVICE 59
K. COASTER BRAKE 59
L. OIL COMPANIES 60
M. RADIO CORPORATION 64
N. DEFECTS 68

CHAPTER III

PATENT CONSOLIDATIONS

A. TWO METHODS OF ACQUIRING PATENTS 69
  1. Consolidation of companies 69
  2. Purchase of patent rights 69
B. REASONS FOR ACQUIRING PATENTS 70
  1. Elimination of competition 70
  2. Utilization of old equipment 70
  3. Basis of unfair competition 70
  4. Improvement of product 71
  5. Prevention of litigation 71
C. SOURCES OF PATENTS 71
  1. Independent inventor 71
  2. Inventors employed by corporation 73
  3. Former examiners of Patent Office 73
D. AMERICAN TOBACCO COMPANY 74
E. AMERICAN STEEL AND WIRE COMPANY 77
F. UNITED SHOE MACHINERY COMPANY 79
G. AMERICAN CAN COMPANY 85
H. A. B. DICK COMPANY 89
I. EASTMAN KODAK COMPANY 90
J. STANDARD OIL COMPANY 97
K. INTERNATIONAL HARVESTER COMPANY 98
L. GENERAL AND WESTINGHOUSE ELECTRIC COMPANIES 99
M. OTHER AMERICAN COMPANIES 100
N. THE KRUPPS 100
O. CRITICISM 101
  1. Evils of monopoly 101

PAGE
2. Commercialization of learning 101
3. Retardation of invention 103
4. Waste of economic resources 104

CHAPTER IV

UNFAIR COMPETITION

A. DEFINITION 105
B. UNCERTAINTY OF LEGAL STATUS 106
C. MONOPOLISTIC AGREEMENT CONCERNING PURCHASES AND SALES 106
1. Patents company—Eastman company contract . . . 106
D. DICTATION OF SUPPLEMENTARY SUPPLIES 109
1. Button-fastener case 109
2. Crown Cork and Seal Company cases 113
3. Henry v. A. B. Dick Company—Mimeograph case . . 113
a. Analysis of patents of Dick company 118
4. Projecting machine case 121
5. Criticism 125
E. CONTROL OF COMPLEMENTARY GOODS 128
1. United Shoe Machinery Company cases 128

CHAPTER V

UNFAIR COMPETITION (*Continued*)

F. MAINTENANCE OF RE-SALE PRICES 135
1. Edison Phonograph Company v. Pike 135
2. Victor Talking Machine Company v. The Fair 136
3. New Jersey Patent Company v. Wernberg 138
4. Bauer and Company v. O'Donnell—Sanatogen case . . 138
5. Straus v. Victor Talking Machine Company 144
6. Boston Store v. American Graphaphone Company . . . 144
7. Folding bed case 145
8. Criticism 145
G. LITIGATION IN THE COURTS 145
1. Amount and expense of litigation 145
2. Threats of infringement suits 147
3. Malicious infringement suits 151
4. Intentional infringement of patents 152
H. INTERFERENCE PROCEEDINGS IN THE PATENT OFFICE 153
1. Amount and expense of interference proceedings . . . 153
2. "Dragnet" applications 154

PAGE
I. FORCED VALIDITY OF PATENTS 155
J. FORCED ROYALTIES 156
K. FALSE MARKING 156
L. PIRACY 158
M. ECONOMIC WASTE 159

CHAPTER VI

SUPPRESSION OF PATENTS

A. LEGAL RIGHT TO SUPPRESS PATENTS 160
  1. Hoe v. Knap 160
  2. Evart Manufacturing Company v. Baldwin Cycle-chain Company 160
  3. Button-fastener case 161
  4. Paper bag case 162
  5. Lock case 164
B. CAUSES OF SUPPRESSION 165
  1. Demerits of invention or patent 165
  2. Inadequate finances 167
  3. Incompetence of patent owner 167
  4. Illegality of unauthorized use of improvement with basic invention 167
  5. Expense of replacing old equipment 167
  6. Attempt to secure industrial monopoly 168
C. EXTENT OF SUPPRESSION 169
  1. Patents granted to Americans 169
  2. Patents granted to foreigners 173
D. CRITICISM 177

CHAPTER VII

OTHER EVILS OF THE PATENT SYSTEM

A. LITIGATION 180
  1. Extent of litigation 180
  2. Expense of litigation 181
  3. Reduction in effective life of patent 182
  4. Causes of litigation 182
    a. Number of patents and claims 182
      (1) Insufficient number of examiners in Patent Office 183
      (2) Subject matter of patents 183
      (3) Exemption from fees after issuance 184

PAGE

- *b.* Invalidity of patents and claims 184
  - (1) Extent of invalid patents 184
  - (2) Causes of invalid patents 185
    - (*a*) Incomplete examination 185
    - (*b*) Disagreement of courts 185
    - (*c*) Defective soliciting 186
    - (*d*) Ignorance of other inventions . . . 186
- *c.* Infringement suits without good faith 186
- *d.* Conflict between Circuit Courts of Appeal . . . 187
- *e.* Other causes 188

5. Importance of litigation to public 189

B. DELAY IN GRANTING PATENTS 189

1. Extent of practice 190
2. Causes of delays 191
   - *a.* Unwarranted claims in application 191
   - *b.* Inopportuneness of invention 192
   - *c.* Desire to include subsequent inventions 193
   - *d.* Interferences 195
   - *e.* Conditions in Patent Office 196
3. Consequent risk in development of patents 196

C. INEFFICIENT AND UNETHICAL ATTORNEYS 198

D. UNSCRUPULOUS PROMOTION OF PATENTS 202

E. EMPLOYER-EMPLOYEE CONTRACTS 202

F. CONTINUATION OF MONOPOLY AFTER EXPIRATION OF PATENT . . 204

G. CONCLUSION 205

CHAPTER VIII

DISCOURAGEMENT OF INVENTORS

A. EXTENT OF FAILURES OF INVENTORS 206

B. CAUSES OF DISAPPOINTMENT OF INVENTORS 207

1. Demerits of inventions and patents 207
2. Monopoly of patents 210
   - *a.* Control of basic patent 210
   - *b.* Patent trusts 210
   - *c.* Continuity of patent monopoly 212
3. Unfair competition 213
4. Suppression of patents 214
5. Other evils of patent system 215
6. Lack of capital 216

PAGE
7. Nature of invention 218
8. Characteristics of inventor 219
C. EFFECT OF DISCOURAGEMENT 220
1. Retardation of inventions 220
2. Economic waste 222

CHAPTER IX

REMEDIES

A. SOCIAL COST OF PATENT SYSTEM 224
1. Industrial monopolies 224
2. Suppression of patents 224
3. Discouragement of invention 224
4. Waste of economic resources 224
B. DEMAND FOR ABOLITION OF PATENTS 225
C. PROPOSALS FOR IMPROVEMENT OF PATENT SYSTEM 226
1. Destruction of patent trusts 226
2. Less litigation 227
a. Decrease in the number of patents 227
(1) Fewer claims 227
(2) Fees 227
b. Validity of patents 227
(1) Thorough examination of applications . . . 228
(2) Publicity of applications 228
(3) Limited period in which to test validity of patent 228
(4) Fewer claims in each patent 228
(5) Discouragement of secrecy of invention . . 228
(6) Uniformity in judicial interpretation of patentability, etc. 229
c. Assumption of validity of patents and preliminary injunctions 229
d. Cumulative damages and costs 230
e. Court of Patent Appeals 231
f. Suit for the alleged infringement of a patent only in one circuit 233
g. Limitation of right to sue users of patented article 233
h. Miscellaneous 233
3. Prevention of unfair competition 234
4. Less delay in granting patents 234
a. Expeditious replies to Patent Office by applicant . 234
b. Award of patent to first applicant 234

PAGE
c. Time of filing application as date of patent grant . 235
d. Reduction in number of appeals in Patent Office . 235
5. Higher standards of patent attorneys 235
6. Modification of employer-employee contracts 237
7. Fees 237
a. Revision of present fees 237
b. Imposition of annual fees 238
8. Compulsory working of patents 240
a. Arguments for and against the proposal 241
b. Application to foreign patentees 245
9. Royalty basis of remuneration 246
10. Expiration of basic and improvement patents at same time 246
11. Dedication of essential inventions to public use by government 247
12. Institution for development of inventions 247
13. Public appreciation of inventor 248
14. Effective publicity as to evils of patent system . . . 248
D. CONCLUSION 249

ECONOMICS OF
OUR PATENT SYSTEM

ECONOMICS OF OUR PATENT SYSTEM

CHAPTER I

BACKGROUND OF PROBLEM

INVENTION is "an exceedingly complex phenomenon, depending as it does, not only on one, but on a plurality of causes."[1] The patent system, despite the assertions of its zealous defenders, is obviously not the sole or principal explanation of inventions. It is really impossible to disentangle the various causes, and to arrange them in the order of their importance. Inventors give conflicting testimony as to the reasons for their inventive activity. The number of inventions in proportion to population varies greatly in different sections of the United States. The early history of this country, in contrast with more recent times, is marked by the lack of inventions. The causes of invention as described by inventors, economists, and others will accordingly be presented in order better to appraise the part that patents play in bringing inventions into being. Subsequent parts of the chapter will relate the history of patents, the salient features of the present patent law, and the economic philosophy according to which the existence of patents is justified.

CAUSES OF INVENTION

Instinct of Contrivance. One explanation of the cause of invention is the instinct of contrivance or workmanship. According to Veblen, "The instinct of workmanship . . . occupies the interest with practical expedients, ways and means, devices and contrivances of efficiency and economy, proficiency, creative work and technological mastery of facts."[2] Another writer declares, "The 'instinct of contrivance,' as it has been called, is irrepressible, and very few inventors indeed can resist spending the money gained by one invention on some new one."[3] Taussig states that "the biographies of inventors give abundant illustrations of the state of inward happiness which comes from the exercise of the contriving bent."[4] According to Walker, the power to invent, which inheres to so remarkable a degree in our people, was created altogether irrespective of, and long antecedently to, a system of patent legislation.[5]

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[1] House Report No. 1082, 63rd Cong., 2nd Sess., p. 2; hereafter referred to as Oldfield Report of 1914.

Inventors have testified as to the influence of the instinct of contrivance upon invention. "A man who is possessed or obsessed by the inventive faculty invents because he cannot help himself."[6] Also, "the inventor invents because he cannot help himself. He is simply imbued with the creative spirit, with the spirit of creative research, and if there is any opportunity for him to exercise that creative spirit he will do it regardless of reward he may receive for it."[7] Edison once stated that the inventor will continue to invent "as long as he commands a dollar. This is a natural peculiarity of the inventive mind."[8]

Reputation. Other factors, such as the desire for fame and the sense of altruism, are conducive to invention. According to one inventor, "the great, prime stimulus to invention is reputation. The fact that makes men work at almost anything in this world, when they are men of the proper stamp, is the reaching for reputation and the credit for having accomplished something. It is true that the greatest sculptors and painters and workers in all lines who were striving to accomplish something superior and get the reputation of having done so, no doubt were also necessarily interested to some degree in the monetary return, and that is also true of the inventor. I do not think that the great inventors are principally led to their work by the money reward; on the contrary, I think that they are principally impelled by the desire to establish reputation of having accomplished something."[9]

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[2] *Instinct of Workmanship,* p. 33.

[3] Reid, "The Influence of Patent Laws upon Industry," *Journal of the Society of Chemical Industry,* Vol. 35, 1916, p. 804.

[4] *Inventors and Money-Makers,* p. 15.

[5] *Discussions in Economics and Statistics,* Vol. II, p. 182.

[6] Hearings before House Committee on Patents, Oldfield Revision and Codification of the Patent Statutes, 1912, No. 3, p. 5; hereafter referred to as Oldfield Hearings of 1912.

[7] Oldfield Hearings of 1912, No. 21, p. 14.

[8] Hearings before House Committee on Patents, United States Patent Office, 1919, p. 173; hereafter referred to as Nolan Hearings of 1919.

The effectiveness of emulation, altruism, and other factors that foster inventions is largely dependent upon the attitude of the public towards inventors and their creations. Inventors have often complained of the lack of appreciation of their efforts. "For inventors have ever been depreciated in their day; even at the present time, despite the known facts as to what inventions and inventors have done for every one of us, the inventor as an inventor is lightly regarded. . . . So are his inventions until they have ceased to be regarded as inventions, and have been accepted as constituent parts of the machine of civilization. By that time the inventor has often been forgotten."[10] Failure to appreciate the accomplishments of inventors, whatever the cause, reacts unfavorably on invention.

Division of Labor. Adam Smith described the effect of the division of labor on invention, as follows:

"I shall only observe, therefore, that the invention of all those machines by which labour is so much facilitated and abridged seems to have been originally owing to the division of labour. Men are much more likely to discover easier and readier methods of attaining any object when the whole attention of their minds is directed towards that single object than when it is dissipated among a great variety of things. But in consequence of the division of labour, the whole of every man's attention comes naturally to be directed towards some one very simple object. It is naturally to be expected, therefore, that some one or other of those who are employed in each particular branch of labour should soon find out easier and readier methods of performing their own particular work, wherever the nature of it admits of such improvement. A great part of the machines made use of in those manufactures in which labor is most subdivided, were originally the inventions of common workmen, who, being each of them employed in some very simple operation, naturally turned their thoughts towards finding out easier and readier methods of performing it. Whoever has been much accustomed to visit such manufactures must frequently have been shown very pretty machines, which were the inventions of such workmen in order to facilitate and quicken their own particular part of the work. In the first fire-engines, a boy was constantly employed to open and shut alternately the communication between the boiler and the cylinder, according as the piston either ascended or descended. One of those boys, who loved to play with his companions, observed that, by tying a string from the handle of the valve which opened this communication to another part of the machine, the valve would open and shut without his assistance, and leave him at liberty to divert himself with his playfellows. One of the greatest improvements that has been made upon this machine, since it was first invented, was in this manner the discovery of a boy who wanted to save his own labour."[11]

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[9] Oldfield Hearings of 1912, No. 4, p. 11.

[10] Fiske, *Invention, the Master-Key to Progress,* p. 19.

Hobson states that "nearly all the great textile inventors were practical men, most of them operatives immersed in the details of their craft, brought face to face continually with some definite difficulty to be overcome, some particular economy desirable to make."[12]

Some of the exceptions to the alleged importance of the division of labor in fostering inventions were enumerated by Hearn. For example: "The founder of the cotton manufacture was a barber. The inventor of the power loom was a clergyman. A farmer devised the application of the screwpropeller. A fancy-goods shopkeeper is one of the most enterprising experimentalists in agriculture. The most remarkable architectural design of our day has been furnished by a gardener. The first person who supplied London with water was a goldsmith. The first extensive maker of English roads was a blind man, bred to no trade. The father of English inland navigation was a duke, and his engineer was a millwright. The first great builder of iron bridges was a stonemason; and the greatest railway engineer commenced his life as a colliery engineman."[13]

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[11] *The Wealth of Nations,* Bk. I, Chap. I.

[12] *The Evolution of Modern Capitalism,* p. 80.

Intellectual Inquiry. Adam Smith, however, realized that division of labor as exemplified by manual labor was not the only cause of invention. Men possessed of intellectual curiosity, who represent one aspect of the division of labor, may bring forth inventions of the most fundamental sort. As he said,

"All the improvements in machinery, however, have by no means been the inventions of those who had occasion to use the machines. Many improvements have been made by the ingenuity of the makers of the machines, when to make them became the business of a peculiar trade; and some by that of those who are called philosophers or men of speculation, whose trade it is not to do anything, but to observe everything; and who, upon that account, are often capable of combining together the powers of the most distant and dissimilar objects. In the progress of society, philosophy or speculation becomes, like every other employment, the principal or sole trade and occupation of a particular class of citizens. Like every other employment too, it is subdivided into a great number of different branches, each of which affords occupation to a peculiar tribe or class of philosophers; and this subdivision of employment in philosophy, as well as in every other business, improves dexterity, and saves time. Each individual becomes more expert in his own peculiar branch, more work is done upon the whole, and the quantity or science is considerably increased by it."[14]

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[13] Hearn, *Plutology,* p. 279.

[14] *The Wealth of Nations,* Bk. I, Chap. I.

Professors Henry of Princeton and Babcock of Wisconsin discovered the principles of the telegraph and the cream separator respectively while in the pursuit of academic investigations, and both of them gave their inventions to the world. The patent system evidently played no part in stimulating their intellectual inquiries. Henry said, "I never myself attempted to reduce the principles to practice, or to apply any of my discoveries to processes in the arts. My whole attention, exclusive of my duties to the College, was devoted to original scientific investigations, and I left to others what I considered, in a scientific view, of subordinate importance—the application of my discoveries to useful purposes in the arts. Besides this I partook of the feeling common to men of science, which disinclines them to secure to themselves the advantages of their discoveries by a patent."[15] Franklin likewise had a mind of the inquiring bent, and "never deigned to patent any of his inventions."[16] Cartwright—"a man leading a life of thought"—was one of the great textile inventors.[17]

Scientific Progress. Scientific progress must also be considered among the factors that stimulate invention. There is, historically speaking, a correlation between the advancement of science and the arts, and the amount and kind of invention. The former present the possibilities of commercial application by the latter. The dissemination of this learning by means of general education enlarges, of course, its effect on invention. John Stuart Mill, in explaining inventions, stated that "much more depends on general intelligence and habitual activity of mind, than on exclusiveness of occupation."[18] According to Veblen, "There is, indeed, a curiously pervasive concomitance, in point of time, place, and race, between the modern machine technology, the material sciences, religious skepticism, and that spirit of insubordination that makes the substance of what are called free or popular institutions."[19] Further, "Any new technological departure necessarily takes its rise in the workmanlike endeavors of given individuals, but it can do so only by force of their familiarity with the body of knowledge which the group already has in hand."[20] Another writer expresses the opinion that "the material progress of mankind rests upon an ever-deepening and widening study of natural phenomena, from which results a corresponding increase in the wealth of means at a man's disposal for his own emancipation, and for the improvement and embellishment of his life."[21] The inventors of the steam engine received inestimable aid from physics. "It was by the knowledge which they gleaned regarding the properties of steam and air and water and iron, regarding the laws of motion and heat and work and force and weight and mass, that the inventors' experiments were guided."[22] An inventor recently said, "A modern inventor has first to be well acquainted with his subject; most of them have studied mechanics, engineering, chemistry, physics, and electricity, or what not, directly or indirectly."[23]

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[15] Thompson, *The Age of Invention,* p. 200.

[16] *Ibid.,* p. 9.

[17] Hobson, *The Evolution of Modern Capitalism,* p. 80.

[18] *Principles of Political Economy,* Bk. I, Chap. VIII, Sec. 5.

[19] *The Instinct of Workmanship,* p. 201.

A considerable part of the knowledge which furnishes a foundation and stimulation to invention is invention itself. It is cumulative in its effect: nothing invents like invention. One inventor writes that "it has been plainly impossible for any material invention to exist without directly and indirectly contributing to the improvement, and even to the birth, of others."[24] Moreover, "inventions have the faculty of self-improvement to a degree far greater than men have it; for the reason that each new man must begin where his last ancestor began, whereas each new invention begins where his last ancestor finished."[25] An anthropologist states, "Every art that is used to minister to our comfort in this present vastly complex civilization has been brought forward step by step, beginning with the simple needs of cruder times."[26]

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[20] *Ibid.*, p. 104.

[21] Thomas, *Source Book for Social Origins*, p. 426.

[22] Fiske, *Invention, The Master-Key to Progress*, p. 156.

[23] Nolan Hearings of 1919, pp. 88-89.

[24] Fiske, *Invention, the Master-Key to Progress*, p. 108.

[25] *Ibid.*, p. 253.

[26] Hough, *Synoptic Series of Objects in the United States National Museum Illustrating the History of Inventions*, p. 2.

Also, "the development of invention is like the unfolding of the human mind."[27] Hobson declares, "No one of the inventions which were greatest in their effect, the jenny, the water-frame, the mule, the power-loom, was in the main attributable to the effort or ability of a single man; each represented in its successful shape the addition of many successive increments of discovery; in most cases the successful invention was the slightly superior survivor of many similar attempts."[28] Another writer declares, "Now and then a path-breaking invention, such as the sewing machine, the reaper, or the electric telegraph, has opened a new way for the application of power in the arts; each such contrivance at once commands attention and leads a throng of contrivers to work which has for its object the improvement of the particular machine. In this way it has come about that American invention from decade to decade has set in certain directions."[29]

Divine Inspiration. Some individuals, inventors particularly, have maintained that invention is the result of divine inspiration. Goodyear wrote, "He who directs the operations of the mind can turn it to the development of the properties of Nature in his own way, and at the time when they are specially needed. The creature imagines he is executing some plan of his own, while he is simply an instrument in the hands of his Maker for executing the divine purposes of beneficence to the race."[30] These words, as a recent author has appropriately remarked, "are a fitting preface for the story of the years that followed, which is a tale of endurance and persistent activity under sufferings and disappointments such as are scarcely paralleled even in the pages of invention, darkened as they often are by poverty and defeat."[31]

According to one inventor, "the only new thing evidenced in the telegraph so far as anyone could know, was the invention itself. God had wrought that through the agency of Morse."[32]

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[27] Hough, *Synoptic Series of Objects in the United States National Museum Illustrating the History of Inventions*, p. 3.

[28] *The Evolution of Modern Capitalism*, p. 79.

[29] *The United States of America*, Vol. II, p. 137.

[30] Thompson, *Age of Invention*, p. 165.

[31] *Ibid.*, p. 165.

[32] Fiske, *Invention, the Master-Key to Progress*, p. 232.

Furthermore, "in the case of each basic invention, an idea seems to have come unbidden to the mind, and grown and developed there."[33] The author of these statements, after asserting that Christianity "was an inspiration from On High," asks the question: "But dare anyone assert that the wonderful conceptions that have come unbidden to the minds of the great inventors were not, in their degree, also inspirations from On High?"[34]

A recent writer quotes Livingstone to the effect that "the existence of various implements which are in use among the Africans and other partially civilized races, points to the communication of an instruction which must have proceeded at some time or another from a superhuman being."[35]

Accident. A convenient way of interpreting inventions is that they arise from accident or mere chance. Hobson states that "the origin and application of inventive genius is largely independent of known laws, and may provisionally be relegated to the domain of 'accident.'"[36] Hubert tells a story concerning Goodyear in which chance plays an important part. "Standing before a stove in a store at Woburn, Mass., he was explaining to some acquaintances the properties of a piece of sulphur-cured india-rubber which he held in his hand. They listened to him good-naturedly, but with evident incredulity, when suddenly he dropped the rubber on the stove, which was red hot. His old clothes would have melted instantly from contact with such heat; but, to his surprise, this piece underwent no such change. In amazement he examined it, and found that while it had charred or shrivelled like leather, it had not softened at all. The bystanders attached no importance to this phenomenon, but to him it was a revelation."[37] Some of Benjamin Franklin's discoveries relating to electricity are partly attributable to accident. However, his conceptions, like those of other inventors, came into being as the result of pertinent lines of inquiry. This interpretation of the significance of accident in connection with invention is borne out by a recent remark of an inventor: "A combination was presented to me by which I solved my particular difficulty, but the perception of that solution was not accident; the combination was accidentally presented, but the observation of the thing, which is invention, was not accidental."[38]

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[33] *Ibid.*, p. 21.

[34] *Ibid.*, p. 50.

[35] Thomas, *Source Book for Social Origins*, p. 431.

[36] *The Evolution of Modern Capitalism*, p. 77.

[37] *Men of Achievement—Inventors*, pp. 167-168.

Economic Conditions. The factors of production—land, labor, capital, and the enterpriser—are necessary in the conception and development of inventions. Capital and labor particularly are prerequisites to invention. The process of conceiving and contriving inventions requires time or waiting, and this presupposes a fund of capital goods. Individuals who live from hand to mouth could not invent even though other conditions, such as the instinct of contrivance, division of labor, etc., were most favorable. Moreover, specific kinds of capital are indispensable in the execution or application of inventive concepts. Inventions resemble the stones composing a pyramid in that each of them rests upon the others. The aeroplane, for example, utilizes the internal combustion engine and other prior inventions, and also the machinery and tools —the result of invention—necessary in putting the various parts together.

"Knowledge, both theoretical and practical, and dexterity are essential to invention. But knowledge implies leisure; and dexterity implies practice; and both leisure and practice imply in turn the means of subsistence. Besides, inventions are seldom produced in a complete state. They are generally the growth of time; they involve many partial and many complete failures; and they are the subjects of continual improvement. In most cases the cost of the instruments through which the invention has to operate is very considerable. A solitary man therefore or a small and poor community can never be very inventive. It is only where the inventor can obtain the aid both of capital and of co-operation that he can with any reasonable hope of success attempt to extort her more important secrets from nature. In a state of isolation, no such aid is at all procurable. In a poor community, it may to some small extent be obtained. In any case the inventor himself has seldom the means of carrying out his projects. His pursuits are not conducive to wealth. The time and the absorbing attention which any great invention demands, furnish very little opportunity for present gain. Where people are poor, or where the want as compared with the circumstances of the population is not very urgently pressing, few persons will consent to risk any considerable sum on the untried projects of a dreamer. Even at the present day almost every important patent is worked by the aid of some capitalist. But if an example be sought of the different rates at which inventive talent grows where capital is abundant and where it is scarce, it is sufficient to compare the England of the nineteenth with the England of the eighteenth century."[39]

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[38] Oldfield Hearings of 1912, No. 3, p. 15.

"No invention can be considered absolutely," for "its success has relation to the existing state of the arts."[40] For example, "the art of navigation depends upon certain astronomical observations, and so upon the art of constructing astronomical instruments. The latter art in its turn depends upon the art of manufacturing glass; and the glass manufacture again involves several other distinct arts."[41] Another author expresses the opinion, "Until the effort of building a machine can be transferred to other shoulders, further invention is practically impossible. The powers of an inventor can thus be given a more adequate expression in conjunction with significant technical capacities in society at large."[42]

That invention requires labor as well as capital is self-evident. Inventive power "depends in the first instance upon the state of the physical sciences, upon the practical ingenuity available for carrying into effect the results of that science, and upon the dexterity that can be applied to the manual processes thus involved."[43] Also, "inventions require work, work, and more work, and expense, expense, and more expense."[44] The inventor "frequently has to do much research work; he works in a laboratory and has to spend money and spend it freely."[45]

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[39] Hearn, *Plutology,* pp. 267-268.
[40] *Ibid.,* p. 192.
[41] *Ibid.,* p. 192.
[42] Usher, *The Industrial History of England,* p. 339.
[43] Hearn, *Plutology,* p. 187.

The factors of production, labor and capital, especially, define the technical boundaries of inventions and in this sense limit the supply of them. On the other hand, the demand for inventions tends to determine the channels of inventive activity into which the factors of production flow. This fact often leads to the saying, "Necessity is the mother of invention." The demand for the aid that invention renders "springs from the perception of some want, and the belief that this want can be most efficiently satisfied by the operation of some physical agency."[46] Walker states, "It was the wants of the higher nature, which it was not impossible to satisfy in some increasing degree by labor and pains and forethought, which afforded the most acute stimulus to the scheming, devising, calculating faculty in early American life, out of which, in the course of generations, was developed that inventive power which so clearly characterizes the population of today."[47] In a given trade "where there are several important processes, an improvement in one process which places it in front of the other stimulates invention in the latter, and each in its turn draws such inventive intelligence as is required to bring it into line with the most highly-developed process. Since the later inventions, with new knowledge and new power behind them, often overshoot the earlier ones, we have a certain law of oscillation in the several processes which maintains progress by means of the stimulus constantly applied by the most advanced process which 'makes the pace.'"[48] The motive of invention is "the assistance that it renders to industry. It is therefore likely to be the most sought when industry most requires assistance."[49] The Commissioner of Patents in 1919 stated, "It is remarkable to notice the close connection between the business conditions of the country and the number of applications received in the Patent Office."[50] The present Commissioner has asserted, "The inventive activity and industrial expansion go hand in hand. Up to recently these were almost entirely confined, to any noticeable extent, to the northeastern portion of the country. Lately there has been a considerable extension of manufacturing or other forms of industry toward the interior, affecting particularly the states of Illinois, Ohio, Michigan, Wisconsin, and Indiana, as well as the far western states of California, Washington, Oregon, Nevada, Utah, and Wyoming, all of which show corresponding increased relations with the Patent Office."[51]

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[44] Nolan Hearings of 1919, p. 88.
[45] *Ibid.*, p. 89.
[46] Hearn, *Plutology*, p. 187.
[47] *Discussions in Economics and Statistics*, Vol. II, p. 183.
[48] Hobson, *Evolution of Modern Capitalism*, pp. 80-81.
[49] Hearn, *Plutology*, p. 187.

Conditions which facilitate the expression of demand, as exchange, are indirectly favorable to invention. There are "indications of the stimulus which exchange, when it is facile, quick, and extensive, gives to invention."[52] Further, "The influence of exchange upon invention arises mainly from the extension which the latter agency gives to wants. One of the most powerful influences upon invention is demand; and demand is, as it were, collected and concentrated by exchange."[53]

The influence of economic and other conditions upon inventions is attested by the conception of a particular invention by different inventors at the same time. "It has often been remarked as a sort of mysterious coincidence that important inventions and discoveries have been made almost simultaneously by independent inquirers. But there is nothing mysterious in this fact. There is a concurrence of the conditions under which inventions take place. Some advance in science, or some improvement in art is effected. A sufficiency of means to prosecute the particular line of inquiry is forthcoming; or the stimulus of some new want is felt. Many minds of a similar character are thus set upon the same train of thought and investigation. It is therefore natural that these similar inquiries should in at least some cases lead to the same conclusion. Truth is single; and if circumstances have placed earnest inquirers of the truth upon the narrow path that leads to it, they can hardly fail, although they may be unconscious of the presence of any other traveler, equally to reach their common destination."[54]

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[50] Nolan Hearings of 1919, p. 201.

[51] Report to Congress, Dec., 1921, p. 21.

[52] Hearn, *Plutology*, p. 287.

[53] *Ibid.*, p. 286.

Evidence may be adduced, however, to show that inventions are not necessarily born of economic conditions. "It is often said that 'necessity is the mother of invention,' but the history of the constructive work of this country appears to disprove the aphorism. At no time in the life of our people has the need of labor-saving contrivances been so great as during the first hundred years after the settlement of the country; yet, as we have noted, this was, as far as mechanical contrivances were concerned, a peculiarly barren period."[55]

According to another writer, "The invention of the sewing-machine was one rich in influence on subsequent progress; and all the story connected with it is interesting in many ways. But the most wonderful fact connected with the invention is that it was not made before! Many inventions have not been made because the conditions at the time did not demand them, or make their successful utilization possible: and yet some inventions, like the Voltaic arc, were made despite the unfavorable conditions. But what conditions were unfavorable to the utilization of Howe's sewing-machine, even as far back in history as the days when the pyramids were built? The Howe sewing-machine was not so complicated an apparatus as the ballista, or the chariot, used by the Assyrians and the other nations in the 'fertile crescent,' that curved from Alexandria to Babylon; and it was much easier and cheaper to make. Its construction required immeasurably less scientific knowledge and carefulness than the printing press, the gun, the telescope, and the microscope, and a score of appliances that had preceded it by several centuries. Why was the sewing-machine not invented before? Why, why? This question continually presents itself to the mind, when certain simple inventions appear, that (so far as we can see) could have been invented and ought to have been invented, long before."[56]

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[54] Hearn, *Plutology*, pp. 195-196.

[55] *The United States of America*, Vol. II, p. 135.

It is interesting to note Veblen's reversal of the relation that exists between necessity and invention. "And here and now, as always and everywhere, invention is the mother of necessity. The complex of technological ways and means grows by increments that come into the scheme by way of improvements, innovations, expedients designed to facilitate, abridge, or enhance the work to be done. Any such innovation that fits workably into the technological scheme, and that in any appreciable degree accelerates the pace of that scheme at any point, will presently make its way into general and imperative use, regardless of whether its net ulterior effect is an increase, or a diminution of material comfort or industrial efficiency. Such is particularly the case under the current pecuniary scheme of life if the new expedient lends itself to the service of competitive gain or competitive spending; its general adoption then peremptorily takes effect on pain of damage and discomfort to all those who fail to strike the new pace."[57]

Economic Reward. The most prevalent explanation of the cause of invention is the desire for economic reward. It is in consideration of this factor that governments have granted money and patents to inventors. Proudhon stated, "Everybody is not in a position to make a present to his fellow-citizens of a road or a machine: generally the inventor, after exhausting his health and substance, expects reward."[58] A former United States Senator said, "The inventor is no more a philanthropist than is the agriculturist. He works for his support. He works to achieve a competency."[59] One writer, in discussing the cause of invention, declared, "But reward in this as in other things is the great incentive."[60] Furthermore, the condition under which most inventions are made at present—in costly laboratories and by highly paid scientists and inventors—suggests the necessity of reward to the private corporations that bear the expense. One treatise on patents states, "The framers of the Constitution perceived that the progress of science and the useful arts could best be promoted by furnishing an incentive to make improvements, and that the best incentive is some personal reward or advantage to the inventor."[61] A former Commissioner of Patents expressed the opinion that "the protection afforded by the patent and the hope of reward have proved the incentives to invention."[62]

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[56] Fiske, *Inventions, Master-Key to Progress,* pp. 236-237.

[57] *Instinct of Workmanship,* p. 314.

[58] Proudhon, *The Philosophy of Misery,* p. 276.

[59] Senate Document No. 6, 59th Cong. Sp. Sess., p. 49; hereafter referred to as Senate Document No. 6.

HISTORY OF PATENTS

An understanding of the nature of patents requires an inquiry into their history not only in the United States but in England, for the patent laws of this country have been greatly influenced by those of the mother country. A brief history of the origin and development of the patent system will be therefore presented.

In England. The promotion of trade and industry formed one of the early policies of England, manifested first in the grant of special privileges to the towns and to the merchant and craft guilds. Later, especially during the reign of Elizabeth, monopolistic privileges were employed to promote foreign trade, as illustrated by the grants to the East India Company, and to foster new industries, as exemplified by monopolies on the importation of playing cards and other articles.[63]

There are several explanations of these patents of monopoly. During the sixteenth century England, as compared with France and other parts of Europe, lagged behind in economic development. The introduction of new industries required, it seemed, a special stimulus in the guise of monopolistic privileges. In the second place, the desire of Elizabeth to strengthen the political power and prestige of the nation partly explains her willingness to create monopolies that were national in scope and subservient to the crown. Furthermore, the sovereigns of the time, continually embarrassed by a depleted exchequer, contrived many devices to replenish it, one of which consisted of the granting of exclusive monopolies in return for royalties. In most instances, however, the expense of protecting the patentee from infringement left little revenue. A fourth reason for these patent monopolies was the desire to reward favorites of the court, many of whom had performed valuable services for the crown. The presence of unscrupulous favorites and the need of revenue eventually led to an abuse of the patent system; the promotion of new industries gave way to a scheme of odious exploitation. For a small pittance most of the life necessities were farmed out as private monopolies. In 1601, Queen Elizabeth, owing to threatened action by Parliament, summarily cancelled the most objectionable patents, and allowed the courts of law to pass judgment upon the remainder.[64]

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[60] Hallidie, *Patent Laws—The Inventor and The Nation, American Assn. of Inventors and Manufacturers,* p. 152.

[61] *Patents,* Machinery's Reference Series, p. 16.

[62] Senate Document No. 6, 59th Cong., Sp. Sess., p. 53.

[63] An able exposition of these privileges may be found in Price, *English Patents of Monopoly;* and Ravenshear, *English Patent System,* pp. 36-41.

The first opportunity of the court to exercise this new prerogative came in 1602, when a certain manufacturer, Darcy by name, brought suit against Allin for the infringement of his exclusive patent for importing, making, and selling playing cards.[65] The consequent decision defined the conditions under which a right to a monopoly would be upheld: "Now, therefore, I will show you how the judges have heretofore allowed of monopoly-patents,—which is that when any man by his own charge and industry, or by his own wit or invention doth bring any new trade into the realm, or any engine tending to the furtherance of a trade that never was used before; and that for the good of the realm;—that in such cases the king may grant to him a monopoly-patent for some reasonable time, until the subjects may learn the same, in consideration of the good that he doth bring by his invention to the commonwealth, otherwise not."

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[64] Sewell, *Law of Patents,* pp. 4-5.

[65] Darcy v. Allin, 11 Coke 846.

Sir Edward Coke, the judge of the case, described a monopoly so as to leave a loop-hole for patent grants: to-wit, "A monopoly is an institution or allowance by the King—by his grant, commission, or otherwise, to any person or persons, bodies politic or corporate, of or for the sole buying, selling, making, working, or using of anything whereby any person or persons, bodies politic or corporate, are sought to be restrained of any freedom or liberty that they had before, or hindred in their lawful trade."[66] Thus, a patent grant for a few years, covering either an invention or a new trade, does not restrain the people of any freedom or liberty that they had before, nor does it hinder them in their lawful trade. The American colonies, as will be noted later, incorporated the spirit of Coke's decision and definition into their own patent laws.

The successor to Elizabeth, James I, disregarding the decision of the court, greatly exploited the patent system in an effort to secure pecuniary aid; so mischievous and oppressive became the practice, that in 1623 Parliament wrung from him the Statute of Monopolies. This declared all monopolies contrary to the laws of England, but provided a wise exception, as follows: "That any declaration beforementioned shall not extend to any letters-patent or grants of privilege for the term of fourteen years, or under, hereafter to be made of the sole working or making of any manner of new manufacture within this realm, to the true and first inventor of such manufactures, which others, at the time of making such letters-patent and grant, shall not use, so as also they be not contrary to the law nor mischievous to the State by raising prices of commodities at home or hurt of trade, or generally inconvenient; the said fourteen years to be accounted from the date of the first letters-patent or grant of such privilege hereafter to be made; but that the same shall be of such force as they should be, if this act had never been made, and of none

[66] Coke, 3 Institutes 181.

other." This exception constitutes the foundation of the present patent laws of England and the United States.[67]

In the Colonies. The special monopolies granted by the original thirteen colonies were not limited to new inventions, but like the British laws were used to encourage the introduction of new manufactures from other countries, or to assist a manufacturer to engage in a familiar industry, or to facilitate inspection.[68] The early legislators, however, prescribed definite boundaries to these privileges. The colonial law of Massachusetts, for example, stipulated, "No monopolies shall be granted or allowed amongst us, but of such new Inventions that are profitable to the Countrie, and that for a short time." [69]

Massachusetts and the other colonies granted numerous monopolies, some of which will be briefly described. In 1641 the General Court of Massachusetts Bay issued a patent for a novel method of making salt. In 1646 the same court granted the following monopoly:

"In ans^r^ to a peticon of Joseph Jenkins for liberty to make experience of his abillityes and inventions for y^e^ making of engines for mills, to goe w^th^ water, for y^e^ more speedy dispatch of worke than formerly, & mills for y^e^ making of sithes & other edged tooles, w^th^ a new invented sawemill, that things may be afforded cheaper than formerly, & that for fouerteene yeeres w^th^ out disturbance by any others setting up the like inventions, that so his study & costs may not be in vayne or lost, this peticon was graunted, so as power is still left to restrayne y^e^ exportacon of such manufactures, & to moderate y^e^ prizes thereof if occaeon so require." [70] The colony retained the power to restrain the exportation of the inventions and to moderate their prices: the monopoly, in other words, was not exclusive. Moreover, the spirit of the grant demanded the concrete introduction, not a mere disclosure, of the invention. In 1750 Massachusetts granted a "ten year patent to a manufacturer of sperm candles and other whale products, requiring him to teach at least five apprentices during that period, of whom two should be nominated by the General Court." [71]

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[67] For an exposition of the early English experience with patents of monopoly, consult: Martin, *English Patent System,* pp. 10-24; Rogers on *Patents,* Vol. I, pp. 1-5; *Two Centuries' Growth of American Law,* pp. 391-392; Report of Investigation of U. S. Patent Office, President's Commission on Economy and Efficiency, 1912, House Document No. 1110, 62nd Cong., 3rd Sess., p. 213; Avram, *Patenting and Promoting Inventions,* pp. 28-35.

[68] Clark, *History of Manufactures of the United States,* 1607-1860, p. 47.

[69] *Body of Liberties of Mass.,* 1641, Liberty 9.

[70] *Records of the Colony of Mass. Bay,* Vol. 3, p. 65, May 6, 1646.

In 1691 Connecticut "offered a monopoly of salt making to any person who would set up the first works." In 1717, it "conditioned a monopoly of making molasses from cornstalks upon the petitioners producing 'as good molasses and as cheap as comes from the West Indies.' " [72] This colony was the most liberal in the number of its grants for the promotion of the useful arts.

"New sources of trade were always encouraged in Rhode Island, and patent rights were readily granted to any who would introduce desirable branches of industry. James Lucena, a Portuguese subject, was naturalized by the Assembly, and an exclusive right for ten years was bestowed upon him to manufacture soap, similar to that made in Castile, of which he knew the process. At the expiration of his patent, he was to reveal the secret to the Assembly." [73] The disclosure of the invention, it should be noted, was to occur when the patent expired and not when it was granted.

Plows were patented and in use in Virginia before the assembling of the First Congress under the Constitution of the U. S.[74] Moreover, Virginia granted money to several inventors as a consideration for their inventions. One inventor, for example, addressed a petition to the Governor and Council "setting forth that he had at great trouble and expense invented a new compass and protractor, by which an angle may be measured both in surveying and platting with greater Accuracy than by any other instrument hitherto discovered and praying such Bounty as the Legislature may think he deserves and the said petition was read." The Legislature allowed him £30 as a consideration for his useful invention.[75]

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[71] Clark, *History of Manufactures of the U. S.*, 1607-1860, p. 50.
[72] *Ibid.*, p. 50.
[73] Arnold, *History of the State of Rhode Island*, Vol. II, 1700-1790, p. 228.
[74] *Patent Centennial Celebration*, 1891, p. 65.

It appears that South Carolina alone gave patent protection to new machinery during the last century of colonial history. In 1691 it enacted the first general patent law in America, "for the better encouragement of the making of engines for the propagating the staples of this colony." After the Revolution, mechanical improvements received more public attention in all the colonies. Fitch and Rumsey were allowed patents for steamboats by several states, and in 1787 the important improvements made by Oliver Evans in mill machinery were similarly protected. Mechanical inventions received relatively less legislative protection during the colonial period than later because tools rather than machinery were used for manufacturing, and power was employed in but few industries.[76]

"New York appears to have been the only colony where monopolies were used as subsidiary to the inspection laws, to assure standard products. This is probably the explanation of the tanning monopoly in New York City granted in 1676 by Governor Andros to two tanners, for it was given at the same time that laws were passed regulating the industry." [77]

The temporary and local effect of these special monopolies may have been at times considerable, but their permanent and general influence upon colonial manufacturers might almost be disregarded. Their common use, in New England especially, to encourage new industries appears to have been due to an acquired habit of legislation rather than to successful experience. After 1750 there was less of this method of promoting industries. Exclusive privileges continued to be granted to inventors; but these latter laws mark the transition from the monopolies of an earlier date to the patent rights which play so important a part in modern legislation affecting manufactures.[78]

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[75] *Journal, House of Burgesses,* Dec. 6, 15, 1764.

[76] Clark, *History of Manufactures of the U. S.,* 1607-1860, pp. 49, 50.

[77] *Ibid.,* p. 52.

In the United States. Each colony had granted patents independently of the others. The Articles of Confederation of 1781 permitted the continuation of this policy. The arrangement led to conflict, confusion, and uncertainty; and therefore suggested the desirability of a national patent system. The Constitution accordingly empowered Congress "to promote the progress of science and the useful arts by securing for limited times to authors and inventors, the exclusive rights to their respective writings and discoveries."[79] Under authority of this provision, Congress passed its first patent law in 1790.

An examining board, composed of the Secretary of State, the Secretary of War, and the Attorney-General, were henceforth authorized to grant a patent if they considered the invention useful and important. Sixty-seven patents were granted under this act. The members of the cabinet experienced difficulty in giving careful study to the increasing number of applications. Moreover, their strict standards and their decisions that the states could not grant patents rendered the Act of 1790 unpopular. The year 1793 marks the passage of the second patent law—the only one ever passed in this country which provided for the issuance of patents and inventions without an examination into their novelty and utility. According to this arrangement, known as the registration system, any one who swore to the originality of his invention and paid the stipulated fees could secure a patent; its validity was decided in the courts. The Act of 1836 repealed the law of 1793 and marked the beginning of our present patent system. It provided for the close scrutiny of each application for patent—in other words, for the examination system. It created the Patent Office, with a Commissioner of Patents at its head. The law of 1870 was largely a consolidation of the

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[78] Clark, *History of Manufactures of the U. S.*, 1607-1860, p. 53.
[79] Constitution, Art. 1, Sec. 8, Par. 8.

Act of 1836 and supplementary statutes; with slight changes, it is in operation today.[80]

SALIENT FEATURES OF PRESENT PATENT LAW

Subject-matter of Patent. Three prerequisites—conception, novelty, and utility—must be met in order to secure a patent. The present law states that " a patent may be obtained by any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement thereof, not known or used by others in this country before his invention or discovery thereof, and not patented or described in any printed publication in this or any foreign country before his invention or discovery thereof, or more than two years prior to his application, and not patented in a country foreign to the United States on an application filed by him or his legal representatives or assigns more than twelve months before his application, and not in public use or on sale in the United States for more than two years prior to his application, unless the same is proved to have been abandoned, upon payment of the fees required by law and other due proceedings had." [81] Some of these terms require definition.

An art may be "any process, or series of steps or operations, for accomplishing a physical or chemical result"—for example, telephoning and casting car wheels. A machine is "any assemblage of mechanical elements having a law of action of its own"—for illustration, a steam engine and a jack knife. "A manufacture is anything made by the hand of man that is not an art, machine, or composition of matter," as a safety pin or a tooth brush. "A composition of matter is any mixture or combination of chemical elements, whether solid, liquid, or gaseous"—for example, calcium carbide and soap.[82] "An improvement is a modification of an instrument or art already existing."[83] Also, a patent may be conferred for a design, which "is an ornamental shape or configuration impressed, imprinted, or otherwise imposed upon an article of manufacture."[84] The subjects for which patents are granted exclude, however, any idea or principle not embodied in concrete form, such as mathematical formulae, laws of nature, and philosophical abstractions.

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[80] The various patent statutes of the United States are described in Investigation of the U. S. Patent Office, President's Commission on Economy and Efficiency, 1912, pp. 214-240; Avram, *Patenting and Promoting Inventions,* pp. 35-55; and *Report of Commissioner of Patents to Congress,* Dec. 31, 1900, pp. 12-19.

[81] Revised Statutes of the United States, Sections 4886 and 4887.

Application for Patent. The application for a patent consists of six parts: the petition, the power of attorney, the specification, the claims, the official drawings, and the oath.

The petition is a request addressed to the Commissioner of Patents asking him to grant a patent to the applicant. The power of attorney signifies the legal appointment of an attorney to represent the inventor before the Patent Office. The specification describes the invention in connection with the drawings. The claims, which constitute the most important part of the application, consist of an enumeration of what the inventor claims as his invention. The official drawings include different views of the invention and its parts from various angles. The oath sets forth the applicant's belief that he is the original and first inventor of the thing for which he solicits a patent.

An examiner of the Patent Office scrutinizes the application and usually rejects some of the claims. The inventor through his attorney modifies the claims and within a year submits them again. Then the examiner usually makes other objections, and the applicant seeks to remove them. This process may be repeated again and again. If the application is finally rejected, the inventor may make appeals to the Board of Examiners in Chief, then to the Commissioner of Patents, and finally to the Court of Appeals of the District of Columbia. Again, the patent applications of two or more inventors may partly or entirely cover the same invention, whereupon the

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[82] Prindle, *Patents as a Factor in Manufacturing,* pp. 20-23.
[83] Sewell, *Law of Patents,* p. 23.
[84] *Ibid.,* p. 23.

Patent Office determines to which one the patent should be issued by means of a proceeding known as an "interference." "While the general rule is that the first inventor is he who first reduced the invention to practice, an exception is recognized in favor of a party who was the first to conceive the invention, but the last to reduce it to actual practice, provided he was using reasonable diligence in perfecting and adapting the same."[85] The fee on filing each original application for a patent is $15; on issuing each original patent, $20. The owner of a patent "must mark the patented articles plainly with the word 'Patented,' or a similar word, together with the date of the patent, or otherwise give sufficient notice to the public that the device is patented." A patentee may transfer his rights by means of an assignment, grant, or license.

Rights of Patentee. "A patent contains a grant to the patentee, his heirs or assigns, for a term of seventeen years, for the exclusive right to make, use, or sell the invention or discovery throughout the United States."[86] It confers the right to restrain others in making, using, and selling the invention. The patentee has "a right of action in the U. S. Courts to restrain others from making profitable use of the invention without the owner's consent, or for recovering damages for unauthorized use. It extends no further. All other rights in the property that may result from the invention remain to be adjudicated in the same manner as if this right created by Congress did not exist."[87] "A charge of infringement of a patent puts in issue either (1) the title of the patentee; (2) the validity of the patent; or (3) the identity of the alleged infringing product or process with that claimed in the patent."[88]

Relation of Patent to Competition. A patent confers a monopoly in a specific invention. It does not sanction a monopoly of kindred and competitive patents or a restraint of trade other than in the particular article to which the patent relates. The Constitution provides for the granting of monopolies to inventors only upon "limited terms," and the patent statute is in harmony with this restriction.

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[85] *Patents,* Machinery's Reference Series, pp. 23-24.
[86] *Ibid.,* p. 17.
[87] *Ibid.,* pp. 33-34.
[88] *Ibid.,* p. 39.

Patented products may be in competition both with patented and unpatented goods. In fact, the patent law is conducive to competition in that it stimulates individual initiative and private enterprise. "Often have small producers, by the use of patented machinery, trenched steadily on the business of great combinations, till they themselves became great producers, secure in the possession of a large field and abundant profit."[89] Moreover, "there are innumerable instances where patents by conferring the protection of a limited monopoly upon individuals or companies have made them independent of their stronger opponents and indifferent to the arguments inviting combination. Two examples most familiar to the public are the printing press and the typewriter. In both those arts many efforts have been made to form combinations, resulting always in failure because each of the companies exclusively owned some distinctive special features which some part of the public wanted, thereby enabling it to continue its independent existence and to compete with all the other concerns."[90]

The House Committee on Patents reported in 1912 that patents, normally, tend to stimulate competition. "The patent law was enacted before any of our trusts came into existence; when competition was the accepted law of trade, and when combinations in restraint of trade were not in contemplation. So long as such conditions continued and the avenues of competition were kept open, the monopoly granted by the patent law, limited as it was, in time tended to stimulate competition. It incited inventors to new effort, and capitalists and business men were encouraged to develop inventions. Under these conditions a patent, while granting a monopoly in a specific article, had rarely a tendency to monopolize any branch of the trade, because few inventions were so fundamental in character as to give the owner of the patent a monopoly in any branch of the trade, and every great financial success arising from an individual patent was sure to result in rival inventions."[91]

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[89] Clark, *Essentials of Economic Theory*, pp. 367-368.

[90] Patent Law Assn. of Washington, *Revision of Patent Laws*, p. 7.

JUSTIFICATION OF PATENTS

The economic philosophy of patents deserves careful consideration in order to have a basis for approving or condemning the acquisitive practices based on patents and described in subsequent chapters. It will constitute a point of departure in studying the economic effects of our patent system. The justification of patents may be analyzed from the following points of view: disclosure of invention, reward of inventor, development of invention, and social welfare.

Disclosure of Invention. The statesmen who designed the patent system said, "We will give this inventor something if he will disclose his secret."[92] The facts are that the patent laws of this country have rested from the beginning on the "fundamental principle of securing for the public benefit the disclosure of an invention."[93] A patent is given to an inventor "in return for his making known and, therefore, making available to the public, his discovery, or creation."[94] The government, in creating the patent system, said to the inventor, "If you have got a new thing which is good, do not keep it secret for yourself; publish your invention; give the Nation the benefit of it, and it will stimulate further inventions."[95] There is in addition "a kind of impetus given by the publication of a patent which accelerates the thinking and dynamics of a nation."[96] Further, "one of the great advantages of the patent system is this, that the more ideas you get into the Patent Office Gazette the more the community is stimulated to invention.[97] It has frequently happened that a patented idea which was foolish and never would have amounted to anything has germinated in the mind of another man and resulted in a great invention."[98]

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[91] House Report No. 1161, 62nd Cong., 2nd Sess., pp. 2-3; hereafter referred to as Oldfield Report of 1912.

[92] Oldfield Hearings of 1912, No. 3, p. 19.

[93] Patent Law Assn. of Washington, *Revision of Patent Laws*, p. 4.

[94] H. A. Toulmin, Jr., *Protection of Industrial Property*, p. 5.

[95] Nolan Hearings of 1919, p. 84.

[96] *Ibid.*, p. 84.

Reward of Inventor. Others express the belief that patents constitute a reward to inventors and therefore stimulate their conception of inventions. Some contend that the inventor, as a matter of justice, is entitled to a reward for his contribution to society. "The great foundation idea upon which rests the constitutional provision for granting patents at all and the great fact upon which they are granted is just compensation to the inventor."[99] Further, "the moral right of an inventor to a patent is based upon a primary principle of justice, viz.: that if he gives the public a valuable improvement, the public ought to pay him for it."[100] Again, "the sense of right among civilized nations demands the legal protection of intellectual work."[101]

According to Mill, "the condemnation of monopolies ought not to extend to patents, by which the originator of an improved process is allowed to enjoy, for a limited period, the exclusive privilege of using his own improvement. This is not making the commodity dear for his benefit, but merely postponing a part of the increased cheapness which the public owes to the inventor, in order to compensate and reward him for the service. That he ought to be both compensated and rewarded for it, will not be denied, and also that if all were at once allowed to avail themselves of his ingenuity, without having shared the labors or the expenses which he had to incur in bringing his idea into a practical shape, either such expenses and labors would be undergone by nobody except very opulent and very public-spirited persons, or the state must put a value on the service rendered by an inventor, and make him a pecuniary grant. This has been done in some instances, and may be done without inconvenience in cases of very conspicuous public benefit; but in general an exclusive privilege, of temporary duration, is preferable; because it leaves nothing to any one's discretion; because the reward conferred by it depends upon the invention's being useful, and the greater the usefulness the greater the reward; and because it is paid by the very persons to whom the service is rendered, the consumers of the commodity. . . . It would be a gross immorality in the law to set everybody free to use a person's work without his consent, and without giving him an equivalent."[102]

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[97] *The Gazette* contains a description of inventions recently patented.

[98] Oldfield Hearings of 1912, No. 26, p. 27.

[99] Senate Document, No. 6, p. 71.

[100] Whitney, *The Patent Office and the Problem of Reform,* p. 5.

[101] Senate Document No. 20, 56th Cong., 2nd Sess., p. 224; one of the resolutions adopted by Patent Congress held at Vienna exposition of 1873.

Jeremy Bentham held that a patent affords a reward peculiarly well adapted to the nature of the service.[103] Bentham further asserts, "With respect to a great number of inventions in the arts, an exclusive privilege is absolutely necessary, in order that what is sown may be reaped. In new inventions, protection against imitators is not less necessary than in established manufactures protection against thieves. He who has no hope that he shall reap, will not take the trouble to sow."[104]

According to List, "the granting of patent privileges offers a prize to inventive minds. The hope of obtaining the prize arouses the mental powers, and gives them a direction towards industrial improvements."[105] Alexander Hamilton stated, "The propriety of stimulating by rewards the invention and introduction of useful improvements is admitted without difficulty."[106]

Development of Invention. One interpretation of patents is that they foster the development and introduction of inventions by manufacturers. The mere conception of an invention is not sufficient to bring forth new ways of satisfying human wants. Inventions progress according to the three stages of conception, development, and production. The embodiment of the idea in a concrete product and the education of prospective purchasers with respect to its merits require the expenditure of considerable capital and labor and the assumption of appreciable risk. A special stimulus, as patent protection, is needed, therefore, to justify the manufacturer in attempting to develop and market the invention. The patent system "has established itself, not primarily as a stimulus for invention or for disclosure, but for utilization and development of new methods requiring the investment of capital and the guarantees which shall make such investment possible."[107] The inventor is given "an exclusive right to make and sell an economical appliance for a term of years that is long enough to pay him for perfecting it and to pay others for introducing it."[108] In 1878 the Senate Committee on Patents issued a report stating, "No change should be made in the patent law to weaken the inducements which it offers to those who will successfully invent, and to those who by perseverance and expenditure will perfect the inventions and the machines in which they are embodied, and push their introductions so far as to put the public in possession of perfectly working machines, or perfectly finished products."[109]

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[102] Mill, *Principles of Political Economy,* Bk. V, Ch. X, Sec. 4.

[103] *Rationale of Reward,* p. 92.

[104] *Manual of Political Economy,* p. 28.

[105] *The National System of Political Economy,* p. 307.

[106] Hamilton, *Report on Manufactures, Senate Documents,* Vol. 22, Misc. III.

In this connection, Adam Smith expressed the opinion that "when a company of merchants undertake, at their own risk and expense, to establish a new trade with some remote and barbarous nation, it may not be unreasonable . . . to grant them, in case of their success, a monopoly of the trade for a certain number of years . . . A temporary monopoly of this kind may be vindicated upon the same principles upon which a like monopoly of a new machine is granted to its inventor."[110] Fisher states that "Herbert Spencer once invented an excellent invalid chair, and, thinking to give it to the world without recompense to himself, did not patent it. The result was that no manufacturer dared risk undertaking its manufacture. Each knew that, if it succeeded, competitors would spring up and rob him of most or all of his profits, while, on the other hand, it might fail."[111]

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[107] Hadley, *Economics*, p. 134.

[108] Clark, *Essentials of Economic Theory*, p. 360.

[109] Oldfield Hearings of 1912, No. 8, p. 21.

[110] *Wealth of Nations*, Bk. V, Ch. I.

It will be seen, then, that the purpose of patents is somewhat similar to that of a protective tariff. The latter is necessary, according to the infant industry argument, to attract labor and capital to a new industry. The tariff, in other words, negatives the prospective unprofitableness of labor and capital which would prevail if foreigners experienced no restrictions in selling their goods in this country. After the industry has been well established, its efficiency alone should be the means by which it can exist in the future. A patent furnishes similar protection to an inventor by excluding competitors for a period of seventeen years. It is necessary to justify the expenditure of labor and capital in the conception and development of an invention. The likelihood of loss, in the absence of such protection, would be so great as to discourage attempts to make and introduce an invention. At the expiration of the monopoly the inventor becomes one of many competitors in a particular industry, and he must survive or perish according to his efficiency.

Social Welfare. Without specifying any particular objective, such as disclosure of invention, reward of inventor, or development of invention, one may justify patents on grounds of public welfare. "Private property is established and maintained for social purposes."[112] It has two aspects, the individual and the social, which are mutually dependent one upon the other. Property rights in the form of patents are granted to inventors so as to promote inventions and therefore the social welfare. The extent to which this is accomplished measures the justification and stability of a patent system. Patent rights and social weal must harmonize if they are to exist together. The Supreme Court stated in an early decision, "It is undeniably true, that the limited and temporary monopoly granted to inventors was never designed for their exclusive profit or advantage; the benefit to the public or community at large was another and doubtless the primary object in granting and securing that monopoly."[113] One defender of the patent system declared, "In no sense can a patent be considered an injustice to the public, because it takes nothing from them which they had ever before possessed: on the contrary, it gives them something new, some increased facility, some more advantageous method, or a cheaper substitute for a rare and costly article."[114]

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[111] Fisher, *Elementary Principles of Economics,* p. 331.

[112] Ely, *Property and Contract,* p. 165.

A patent monopoly involves a contractual relationship of mutual benefit between the inventor and the public. The consideration to the inventor is an exclusive monopoly in his invention for seventeen years; while that to the public consists of an immediate and complete disclosure of the invention, an unlimited right to the invention after the expiration of the patent, and the encouragement of invention. The fundamental purpose of this contractual relation proceeds from the one word "promote." Our forefathers, having in mind the public welfare in framing the Constitution desired "to promote the progress of science and useful arts," the accomplishment of which required a reconciliation of private and public interests. Securing for limited times to inventors the exclusive rights to their discoveries in return for the promotion of invention harmonized the private interest of the inventor and the welfare of society.

Conclusion

This chapter has described the causes of invention, the history of patents, the salient features of the present patent law, and the justification of patents. The author has made no attempt to assign degrees of importance to the causes of invention. It is doubtful whether a single invention may be attributed to only one of them. However, the desire for economic reward appears as one of the most important and one of the most frequent causes of invention. Patents furnish the means by which the expectation of pecuniary gain

[113] Kendall v. Winsor, 21 How. 322, 327-328.

[114] Perry, *A Defense of the Patent System of the United States*, p. 15.

may be fulfilled, and to this extent promote the progress of the industrial arts and the economic welfare of society. In return for this advantage, the people grant to the inventor, according to the theory of the patent law, the right to exclude others for seventeen years from making, using, and selling his invention.

The evils connected with our patent system—industrial monopolies, suppression of patents, discouragement of invention, and economic waste—form a tremendous liability in appraising its net utility. They constitute the subject-matter of the next seven chapters.

CHAPTER II

PATENT POOLS

Patents have been used to further the restraint of trade between the owners of patents and others, and to help create industrial monopolies. The exploitation of patents in this fashion has been most pronounced since the passage of the Sherman Act in 1890. This law, together with the Clayton Act of 1914, both denouncing restraint of trade and monopoly, many corporations have sought to evade. Some of them have proceeded on the assumption that patents might lend legal immunity to their designs because patents themselves confer legal monopolies—the exclusive right to make, use, and sell. Patents have been used to defeat the purpose of the anti-trust laws by means of pools, consolidations, and unfair competition. These three methods furnish the subjects of the next four chapters. This chapter is devoted to a description of patent pools.

A patent pool is an arrangement by which former competitors partake of the privileges conferred by one or more patents according to some pre-arranged basis designed to restrain trade. The pool, the typical form of combination during the early nineties, was employed by the owners of patents, as well as others, in trying to eliminate competition.[1]

Classification

Those in control of the patents of pools may be grouped according to whether they are assignees or owners, individuals or companies, manufacturers or mere possessors of patents. In some instances an assignee controlled the patents; in others, the owners of them. The Consolidated Seeded Raisin Company and the Motion Picture Patents Company illustrate the former, and the Rubber Tire Wheel Company and Indiana Manufacturing Company, the latter. In one instance—the liquid door check combination—various owners of patents pooled them by agreement and without assignment. In the bath-tub pool an individual controlled the patents; in other pools, a company. Those in charge of the patents of the rubber tire and coaster brake pools were also engaged in manufacturing the products covered by the respective groups of patents; whereas those in control of the patents of the harrow, seeded raisin, wind-stacker, bath-tub, and motion picture pools confined themselves to the possession of patents and the supervision of licensees.

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[1] See Haney, *Business Organization and Combination*, p. 165.

The details of patent pools differed as to the number of business units that contributed patents to further this form of combination. The Rubber Tire Wheel Company and the Indiana Manufacturing Company were the sole owners of patents in the rubber tire and wind-stacker pools; the former used one patent as the basis of license agreements, while the latter employed several patents. Two or more concerns, but not all the members of the pool, furnished patents as a basis for the arrangement in the bath-tub and motion picture pools. Each member contributed one or more patents in the harrow, seeded raisin, liquid door check, and bath-tub pools. Not all of the patents pooled, however, were necessarily used as a basis for license agreements; for example, in the bath-tub pool, although three companies assigned their patents, only one of them was employed. In the harrow pool, each company received licenses based only on the patents it assigned, whereas in the other pools all the members partook of the rights of the same patents.

The remainder of the chapter describes the patent pools already mentioned.

Sewing Machine

The sewing machine industry started in the United States about 1850. It was not very profitable at first owing to the expense of perfecting the machine and introducing it to the public. In 1856 the manufacturers of sewing machines agreed to pool their patents for the purpose of more effectually protecting the business against infringers, and of granting licenses under the patents to others who desired to engage in the business. The license fee was fixed at $15 per machine. In the year 1860, this license was reduced to $7 per machine; and at this rate twelve additional licenses to manufacture were granted. In 1868 it was again reduced to $5 per machine, and lastly, in 1870, to $3 per machine.[2] The members of the pool were Elias Howe, Wheeler and Wilson, Grover and Baker, and I. M. Singer; and they dominated the field until after 1877, when the majority of the basic patents expired.

HARROW

The National Harrow Company of New York was "a combination of six manufacturers of harrows for the purpose of holding patents and licensing the respective manufacturers under them. Eighty-five patents were acquired by assignment from the several manufacturers."[3] The National company acquired control of most of the spring tooth harrow business in the United States. Bement and Sons was one of the manufacturers of harrows that assigned its patents to this company. The former obtained, under definite conditions, an exclusive license to make the harrows described in the patents which it assigned. Bement and Sons was required to pay a royalty of $1 for each harrow sold; to make verified monthly reports of their business to the plaintiff; to make and sell only that type of harrow covered by the license; to sell harrows only at the prices stipulated by the agreement; and to pay $5 for each of the articles sold contrary to the terms of the license. The National company assumed these rights and duties: to reserve the privilege to decrease the selling price or the royalty; to furnish counsel to the defendant in any suit brought for an alleged infringement; and to grant no other license to manufacture the harrow in question.

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[2] Perry, *A Defense of the Patent System of the United States,* pp. 24-25.

[3] House Report (minority) No. 1161, 62nd Cong., 3rd Sess., 1913, part 2, p. 3.

The National company accused Bement and Sons of violating these conditions and demanded a large amount of damages and a specific performance of the contract. The defendant denied many of the charges and maintained that since it and the plaintiff, together with other manufacturers of harrows, were members of a combination to regulate the output and price of harrows, their contract was null and void. The New York Supreme Court held the license contracts void as against public policy and in contravention of the New York anti-trust law.[4]

The case was appealed to the United States Supreme Court in 1902.[5] The evidence, examined by a referee, failed to show either that other manufacturers of harrows entered into the same kind of contract with the National Harrow Company, or that a general combination among the dealers in patented harrows existed to regulate the prices of this commodity. The court declined to assume that "there was a general combination among the dealers in patented harrows to regulate the sale and prices of such harrows."[6] It stated that these contracts "are to be judged by their own contents alone and construed accordingly."[7] Moreover, "the plaintiff, according to the finding of the referee, was at the time when these licenses were executed the absolute owners of the letters patent relating to the float spring-tooth harrow business."[8]

The court held that the contract between the National company and Bement and Sons was not illegal.

"The general rule is absolute freedom in the use or sale of patent rights under the patent laws of the United States. The very object of these laws is monopoly, and the rule is, with few exceptions, that any conditions which are not in their very nature illegal with regard to this kind of property, imposed by the patentee and agreed to by the licensee for the right to manufacture or use or sell the article, will be upheld by the courts.[9] The fact that the conditions in the contract keep up the monopoly or fix prices does not render them illegal."[10]

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[4] 21 App. Div., N. Y., 290, 1897; 47 N. Y. S. 462.

[5] 186 U. S. 70.

[6] *Ibid.*, p. 85.

[7] *Ibid.*, p. 85.

[8] *Ibid.*, p. 88.

The tribunal added that a license agreement may also stipulate the kind and number of harrows that the licensee must manufacture. The whole arrangement, therefore, as interpreted by the court, merely constituted a contract between a patentee or licensor and a licensee; the patentee, enjoying the legal right to monopolize his patented commodity, may license another to manufacture and sell this commodity upon certain conditions.

Earlier judicial decisions involved the National Harrow Company of New Jersey. It was a holding company and preceded the National Harrow Company of New York just described. The purposes of the two companies, however, were apparently identical: namely, to pool the patents relating to harrows in order to suppress competition between individual manufacturers. One of these decisions, National Harrow Company v. Hench, may be cited to substantiate this statement.[11]

Hench had assigned two patents to the harrow company and received an exclusive license to manufacture and sell his former style of harrows upon conditions like those described in the Bement case. The company brought suit to compel the performance of this contract.[12] The court first considered the purpose of the organization, and expressed it as follows in its decision:

"It is manifest, as well from the contract as from the proofs outside of it, that the purpose of the parties was to form a combination between the various manufacturers of these harrows, to prevent competition in business and enhance prices;

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[9] To forbid a licensee from using any patents which are legally obtained by him and which do not infringe other patents, illustrated, according to the court, a condition illegal in its very nature.

[10] 186 U. S. 70, p. 91.

[11] 83 Fed. Rep. 36, C. C. A., 1897. Other decisions are: 67 Fed. Rep. 130, C. C., 1895; 76 Fed. Rep. 667, C. C., 1896; 84 Fed. Rep. 226, C. C., 1898.

[12] For a more detailed statement of facts, see 76 Fed. Rep. 668-669.

and such is the effect of their agreement. The corporation, provided to hold the legal title of the several patents, is merely an instrument to effect this object. The prior owners are still the beneficial owners, with right to continue their business, subject only to the restraint in its management imposed by the contract. The provision for licenses is made necessary by the transfers of titles, and is simply another part of the scheme for combination and control of the business of the several patentees. The result would be the same in legal contemplation if the corporation and licenses had been dispensed with, and the contract had provided simply, as it does, for combination and restraint of competition. That such a contract would be unlawful seems clear."[13]

Moreover, the decision declared in effect that a patent monopoly does not warrant various owners of different patents in suppressing competition and enhancing prices:

"The fact that the property involved is covered by letters patent is urged as a justification; but we do not see how any importance can be attributed to this fact. Patents confer a monopoly as respects the property covered by them, but they confer no right upon the owners of several distinct patents to combine for the purpose of restraining competition and trade. Patented property does not differ in this respect from any other. The fact that one patentee may possess himself of several patents, and thus increase his monopoly, affords no support for an argument in favor of a combination by several distinct owners of such property to restrain manufacture, control sales, and enhance prices. Such combinations are conspiracies against the public interests, and abuses of patent privileges. The object of these privileges is to promote the public benefit as well as to reward inventors."[14]

SEEDED RAISIN

In 1900 eight manufacturers engaged in seeding and processing raisins assigned their respective patents relating to this art to the Consolidated Seeded Raisin Company, a mere

[13] 83 Fed. Rep. 36, 38.

[14] *Ibid.*, p. 38.

dummy, and received in return uniform licenses based upon all of them. The licenses declared this corporation or licensor the owner of these patents, and required it to inspect the books of the licensees and to prosecute infringers of the patents; it imposed upon the licensees the payment of royalties and also certain conditions as to the use and ownership of the patented machines, prohibiting their use of any others. Moreover, the licensor agreed not to license other parties without the consent of one-half the licensees: a committee of four was to decide to whom licenses should be issued.

One of the manufacturers, charged with a violation of the license agreement, pleaded the illegality of the contract.[15] The court forthwith declared this case analogous to Bement v. National Harrow Company, saying, "That such a contract is not void as against public policy, in that it tends to create a monopoly, has been decided by the Supreme Court in the case of Bement v. National Harrow Company."[16]

"We think the principles announced in that case must control our decision of the question which is here presented, and under its authority we hold that the contract in question in the present case is not void as against public policy, as tending to create a monopoly, or as obnoxious to the provisions of the Sherman Anti-Trust Act."[17]

This decision recognized the legal right to convey patents covering similar inventions to a single patentee, who then issues licenses upon them to their owners. The court based its argument upon Bement v. National Harrow Company; but in that case, only the relation of a patentee to a licensee entered. Therefore it was illogical to employ that decision as a criterion in the present case, in which the owners of patents for similar inventions assigned them to a single company and received in return licenses based upon all patents thus pooled.

RUBBER TIRE

The Rubber Tire Wheel Company, the owner of a patent on rubber tire wheels, entered into uniform license agreements, with eighteen—practically all—of the manufacturers of tires in the United States. The contract provided for a considerable advance in the selling price of tires, and limited the production of each licensee to a certain percentage of the output of all. If a licensee made less than his quota, he received a rebate of 20 per cent of the value of the shortage; if more, he paid a royalty of 20 per cent of the excess. Furthermore, each manufacturer paid a royalty equal to 4 per cent of the net selling price of his tires. The licensor received 2 per cent of all royalties. The contracts also provided for a commission appointed by the licensor to supervise and audit the operations of the licensees, and with their majority consent, to sell tires, purchased from any or all of them, at prices considered best for the interest of all. This body received the royalties, other than the 2 per cent already mentioned, and after deducting their expenses and compensation for services, disbursed the rebates for shortage. It was directed to accumulate a fund of $50,000, and distribute monthly an excess of this amount to the licensees on the basis of apportioned output.

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[15] 126 Fed. Rep. 364, C. C. A., 1903.

[16] *Ibid.*, p. 368.

[17] *Ibid.*, p. 369.

The company, soon after the formation of this pool, brought suit against the Milwaukee Rubber Works Company, one of the licensees, to recover unpaid royalties. The circuit court[18] declared the license agreement illegal owing to the pronouncement by the Sixth Circuit Court of Appeals of the invalidity of the patent in question and owing to the creation of a fund to promote the scheme of underselling and, hence, crushing competitors.[19]

This case, appealed to a Circuit Court of Appeals, received a very different interpretation. After elaborating the idea that a patentee enjoys an exclusive monopoly, the court proceeded to answer the query: Does the requirement that the licensee join other licensees in a combination or pool to control prices and output of an innocuous article violate the Sherman law? using this language: "The only grant to the patentee was the right to exclude others, to have and to hold for himself and his assigns a monopoly, not a right limited or conditioned according to the sentiment of judges, but an absolute monopoly constitutionally conferred by the sovereign law makers. Over and above an absolute monopoly created by law, how can there be a further and an unlawful monopoly in the same thing? If plaintiff were the sole maker, how could plaintiff's control of prices and output injure the people, deprive them of something to which they have a right? Is a greater injury or deprivation inflicted, if plaintiff authorizes a combination or pool to do what plaintiff can do directly?"[20]

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[18] 142 Fed. Rep. 531, January 23, 1906.

[19] According to law, this decision was effective only in the Sixth Circuit. All Circuit Courts must pass upon the invalidity of a patent before it becomes void throughout the United States.

But the plaintiff alone could not directly secure a monopoly of rubber tires. Its patent was only one of many outstanding and pertaining to rubber tires. Its insignificant and questionable nature is suggested by the announcement of its invalidity by the Sixth Circuit Court of Appeals. The argument quoted would be sound if the plaintiff had held a patent monopoly of the rubber tire as a commodity—a proviso contrary to fact, for there were at least eighteen other manufacturers of tires. The scheme brought rubber tires as such, as well as the particular invention relating to rubber tires, within the realm of a monopoly. The acceptance of the court's argument would lead to a monopoly of every product for which one or more patents had been issued. It would only be necessary for one manufacturer who had a patent relating to a certain product to license other manufacturers of the same product upon certain conditions with respect to price, etc., as the plaintiff did. For example, a patent covering a pocket knife, no matter how trivial, might be made the legal basis of a combination of all manufacturers of pocket knives. The failure to distinguish between a product and a patent relating to the product accounted for the weakness of the court's argument.

Later this case reached the United States Supreme Court, where it was dismissed, per stipulation.[21]

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[20] 154 Fed. Rep. 358, 363. Compare with Goshen Rubber Works v. Single Tube Tire Co., 166 Fed. Rep. 431, C. C. A., 1908.

[21] 210 U. S. 439, June 1, 1908.

WIND-STACKER

The Indiana Manufacturing Company gradually acquired practically all patents pertaining to wind or pneumatic straw stackers, and issued uniform licenses to all the manufacturers of threshing machines in the country. They were given the right to use any and all inventions covered by such patents and by any other patents subsequently acquired. The company stipulated a uniform price ($250) for its product and the payment of a royalty. Not all these patents could be used conjointly in a single machine; some of them were of no practical value.

This company brought suit against the Case Manufacturing Company for infringement of its patents and violation of the license agreement between the two companies. The Circuit Court held that the sundry patents in suit were capable of independent use in an independent mechanism of the art, but since the patent law grants a monopoly in only the "beneficial use of a specific invention," the acquisition of competing patents must be "brought within the inhibition of the general law." [22] The tribunal pronounced the Indiana company the promoter of a two-fold combination of numerous patent properties and of all manufacturers of threshing machines, which made its agreement with the licensees illegal. The court considered, therefore, not only the relation existing between the plaintiff and the defendant, as in Bement v. National Harrow Company, but also the general relation of the complainant or licensor to all its licensees. It announced in a forceful way that the patent statute does not furnish the foundation for a combination of the manufacturers of any single commodity. The court declared that it would not consider the infringement suit in question since it grew out of an illegal agreement.

The Circuit Court of Appeals rendered a decision diametrically opposed to that of the Circuit Court. The judge who wrote the opinion was the same one as in the rubber tire case, and his argument was much the same; both decisions were promulgated the same day. The court stated that articles covered by patents are never articles of trade or commerce within the operation of the Sherman law.[23] The court attempted to answer the objection to the large number of licensees: "All the makers of threshing machinery have come into the system. That this resulted, without any concert of action on the part of the licensees, solely from a policy pursued by appellant through a course of years, is virtually admitted and is clearly proven. Appellant started out to supply the trade. That was its exclusive right." [24]

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[22] 148 Fed. Rep. 21, 25-26, Aug., 1906.

This reasoning, truly, was open to criticism, for what difference did it make to the public whether the result—the control of output and price—came quickly or slowly? Moreover, what was meant by the exclusive right to supply the trade? Did this right relate to each specific invention or to the acquirement of all inventions relating to a certain product? Further, with respect to each specific invention, did this right pertain to the wind-stacker as a commodity or to a patented invention covering one aspect of the stacker?

The court treated the question as to the number of patents owned by the Indiana company in an untenable fashion. It assumed, for the sake of argument, that an individual owned two patents, and then stated that the contention of the Case company comes to this: "If he owned either alone, over that he would have complete domination; owning both, he controls nothing. The public has no right in either invention; therefore the public has the right to have them both in the market competing for buyers. Naught plus naught; the sum of two naughts is a substantive quantity." [25] One legal writer has criticized this argument by showing its application in a similar situation. "There are two bakeries in a town and only two; they constitute the sole source of the bread supply. The 'public has no right in either'; it cannot force either to sell bread, much less both. Suppose the two proprietors enter into an agreement to raise the price of bread to ten cents a loaf. Naught plus naught; the sum of the two naughts is a crime.

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[23] 154 Fed. Rep. 365, April 16, 1907.

[24] *Ibid.,* p. 370.

[25] *Ibid.,* p. 371.

That is not the Threshing Machine case, but it is a fair test of the strength of the argument expounded."[26]

This case, after an appeal to the Supreme Court, was dismissed per stipulation without cost to either party at the request of counsel, December 16, 1907.[27] In the interim—between the appeal and the dismissal—the directors of the Case company had purchased a majority of the stock of the Indiana company and thus had acquired control of it, a fact which partly explains the interest of both parties in dropping the suit.

The Bureau of Corporations conducted an investigation and presented a report in March, 1915, on Farm Machinery Trade Associations, one chapter of which is entitled Concentration in Ownership of Wind-Stacker Patents. This contained a detailed statement of the origin and development of the Indiana company and the relations between this concern and its licensees, the Case company in particular. This chapter substantiated and supplemented the facts presented in the judicial decisions already examined. It stated that in 1908, after the rendition of these decisions, the Indiana company "submitted a supplemental contract to each licensee, known as the patents purchase agreement, by which it was agreed that any licensee who would agree to turn over to the Indiana company all patents which he might own or acquire during the term of the license contract, would be allowed the sum of $5 on each stacker manufactured by him as licensee of the Indiana company."[28]

This report concerning the Indiana Manufacturing Company and its licensees indicates that this company derived its strength from a patent pool.[29] Although manufacturing wind-stackers itself at first, this company soon discontinued the practice and confined itself exclusively to acquiring wind-stacker patents and licensing others to manufacture stackers. It stipulated a uniform price for the product and the payment of a certain royalty. Some patents were purchased outright, and in other cases arrangements were made to acquire manufacturing rights for the licensees. The first 100 patents thus acquired cost $600,000, in addition to royalties paid to patentees.

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[26] Gladney, *Restraints of Trade in Patented Articles*, pp. 364-365.
[27] 207 U. S. 603.
[28] Bureau of Corporations, *Report on Farm Machinery Trade Associations*, pp. 122-123.
[29] *Ibid.*, pp. 111-127.

These patents could not all be used in a single machine. Some were used, others suppressed. The control of the basic patents on wind-stackers, for example the Buchanan, made it easy to secure control of patented improvements. In any case an improvement is of no value without the basic invention; if the latter is covered by a patent, the utilization of the former depends on the permission of the possessor of the basic patent or else it must be suppressed until the basic patent expires. By controlling the basic patents it became possible for the Indiana company easily to acquire all patents on improvements—a sort of purchasing monopoly, as it were. The "patents purchase agreement" by which the Indiana company contracted for the future wind-stacker inventions of the licensees helped to insure the continuity of its monopoly.

It is unfortunate that the legality of the Indiana company—its license system and control of patents not capable of conjoint use—was not passed upon by the Supreme Court, for the consequent decision would establish a precedent for judging other industrial monopolies based upon a number of incongruous patents.

LIQUID DOOR CHECK

In the decision of Blount Manufacturing Company v. Yale and Towne Manufacturing Company,[30] the so-called lock case, one finds an excellent exposition of the patent and Sherman laws and of their relation to each other and the public. The plaintiff and the defendant, the owners of patents on liquid door checks, together with two kindred manufacturers, entered into contracts which restrained each other in the exercise of rights conferred by their respective patents and authorized each of them to use the patents of the others. The plan comprehended, in the language of the courts, "the maintaining of prices, the pooling of profits, the elimination of competition, and the restraint of improvements."[31] The Yale and Towne Company, sued for violating the agreement, pleaded its illegality.[32] This, according to the court, involved the following question: Is the Sherman Act inapplicable because the agreements related to articles embodying patented inventions? The Bement decision, not passing upon this question but relating solely to restraints and conditions imposed in connection with the grant of patent rights, the tribunal refused to follow as a criterion; it also discarded the rubber tire and threshing machine cases, as not directly in point.

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[30] 166 Fed. Rep. 555, C. C., Jan., 1909.

The difference between patent monopoly and combination received considerable attention from the court, as the following shows: "It seems self-evident that a contract which is only coextensive with the monopoly conferred by letters patent, and which creates no additional restraint of trade or monopoly, does not conflict with the Sherman Act. The monopoly granted by letters patent is of a particular invention. Devices thus protected by patents are, as a matter of fact, in commercial competition with both patented and unpatented devices. A contract whereby the manufacturers of two independent patented inventions agree not to compete in the same commercial field deprives the public of the benefits of competition, and creates a restraint of trade which results, not from the granting of letters patent, but from agreement. While the monopoly of the patented articles is not increased, the monopoly of the commercial field is increased by the 'unified tactics' as to prices."[33]

This quotation presents the proposition that inasmuch as the patent statute confers a monopoly only upon a specific invention, it does not warrant a restraint of trade by independent manufacturers, even though letters patent protect their respective commodities. In other words, a combination cannot enjoy the halo of the law merely because its constituent parts are legal monopolies.

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[31] *Ibid.*, p. 556.

[32] The Yale and Towne Manufacturing Company, in 1914, produced over 100,000 different articles, and practically none of them were covered by patents, the foundation patents having expired many years ago. In 1914 there were about 100 patents still in force; none of them related to anything that was controlling. Cf. Hearings before House Committee on Judiciary, Trust Legislation, 63rd Cong., 2nd Sess., Vol. II, p. 522; from statement of Henry R. Towne, President of Yale and Towne Manufacturing Company.

[33] 166 Fed. Rep. 555, 557. In this connection the court cites: National Harrow Co. v. Hench, 83 Fed. Rep. 36; Same v. Quick, 67 Fed. Rep. 130.

Also, the court contrasted the purposes of a patent monopoly with those of a combination, as follows: "If, as a result of mutual licenses, there is put upon the market an article embodying the inventions of both patentees, so that as the effect of exchange of licenses a new article of commerce is developed, it is doubtful if the public is thereby unlawfully deprived of any of its rights or expectations of free competition. Where, however, each patentee continues to make his own goods under his own patents, and seeks to enhance his profits by an agreement with competitors, who make either patented or unpatented articles, then it seems to follow that the agreement of each to restrain his own trade cannot be regarded merely as an incident to the assignment of patent rights. The patentee then restrains his own trade, not for the purpose of enhancing the value of the license which he grants, but for the purpose of enhancing the value of his trade by removing competition. A sale or license with a covenant not to compete, made as an ordinary incident to enhance the value of the thing conveyed, is not within the Sherman Act."[34] The monopoly, in other words, arose from combination and not from the exercise of rights granted by letters patent.

This led to the next point—the relation of the Sherman law to the patent law. "The Sherman Act is not inconsistent with any rights acquired by the patentee when it prevents agreements in restraint of trade which are not designed to make valuable the right to use. There is no inconsistency between the grant of an exclusive and assignable right to make, use, and vend, and the prohibition of an agreement restraining or suppressing the sale of the article in interstate commerce, because any profit from such an agreement does not arise from the value of making, using, and vending. There is no inconsistency between the proposition that an inventor may withhold his invention from use as he sees fit, and the proposition that he may not make an agreement whereby, for the advantage of a competitor, trade in his patented article is restrained or suppressed."[35]

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[34] 166 Fed. Rep. 557-558. In this connection the court cites: National Harrow Co. v. Hench, 83 Fed. Rep. 36; Same v. Quick, 67 Fed. Rep. 130.

This quotation stresses the supplementary character of the patent and Sherman laws. Each has a limited field. The one grants a certain kind of monopoly but not everything that the other forbids. In this instance the patentees passed beyond the exclusive right to make, use, and vend—all that the patent statute confers—by combining or pooling their patents, and hence violated the Sherman Act.

BATH-TUB

The Standard Sanitary Manufacturing Company, which in 1912 controlled about one-half the output of enameled ware in the United States, was incorporated in 1899 under the laws of New Jersey "to consolidate the business and acquire the plants of a number of manufacturers of plumbers' enameled iron ware, brass work, and other plumbers' supplies."[36] This company and two other manufacturers of enameled iron ware—the J. L. Mott Iron Works and the L. Wolff Manufacturing Company—assigned their patents for an enameling process to the secretary of the association of enameled ware manufacturers, Wayman by name; and on the basis of one of them—the one assigned by the Standard Sanitary Manufacturing Company, the others being regarded as infringing patents—Wayman issued licenses to manufacturers of enameled ware and jobbers in this commodity, which brought 85 per cent of the former and 90 per cent of the latter into a network of license agreements. According to these contracts, a committee of six, chosen from the manufacturers entering the combination, determined the selling prices of both manufacturers and jobbers. They also provided for territory pools, for the payment of royalties, and for rebates and penalties to prevent the violation of the license compact. The manufacturers could sell their enameled ware only to those jobbers belonging to the combination; while the latter could buy such goods only from the former. Wayman, the licensor, was the one from whom all the licenses radiated. He had contracts with both the manufacturers and jobbers and thus all came under his direct control. In addition, the manufacturer and jobber were the two parties to an agreement approved by the licensor. Wayman was accordingly the central figure of the scheme; in his hands were the licenses that cemented enameled ware manufacturers and jobbers into a strong combination.

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[35] *Ibid.*, p. 561.

[36] In 1913 it acquired the two plants of the Great Western Pottery Company at Kokomo, Indiana, and Tiffin, Ohio; in 1917, four other manufacturers of enameled ware.

The Standard company, charged in a Circuit Court with a violation of the Sherman Act, pleaded that the combination was immune from this law because it was based upon a patent. The tribunal set forth the two main questions in the controversy: "Would such a combination as was attempted, and in large part brought about, have violated the Sherman Act, had patents on automatic dredgers [i.e., devices for distributing the enamel on the bath-tub in the process of manufacture] played no part in it? If it would, did the part played by those patents make lawful what otherwise would have been forbidden?"[37]

In answer to the first query it pointed out that both motive and result in this instance indicated an unlawful combination, for no defendant entered into the agreement without knowing that at least 13 of the other corporate defendants had executed it, or intended to do so. Without this knowledge no one of them would have become a party to it. Not only did the agreements raise prices, they prevented reductions that would otherwise have been made.[38]

To the second question, "Did the part played by those patents make lawful what otherwise would have been forbidden?" the court gave a negative answer; first, because the patent covered only a minor part of the manufacturing process, not essential in making enameled goods; second, because the finished product or enameled ware itself was unpatented. That this patent covered only a minor part of a manufacturing process and that the finished product itself was unpatented, made the reasoning in this case different from that in other decisions.

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[37] 191 Fed. Rep. 172, 177-178, Oct., 1911.

[38] *Ibid.*, pp. 174, 181.

The Supreme Court, to which the case was appealed from the Circuit Court, also declared the combination illegal, but gave little attention to the points most emphasized by the lower court. After reviewing the facts, the Supreme Court concluded that this monopoly arose primarily from combination, and hence condemned it as it had other combinations that had violated the Sherman Act: "The added element of the patent in the case at bar cannot confer immunity from a like condemnation, for the reasons we have stated. And this we say without entering into the consideration of the distinction of rights for which the government contends between a patented article and a patented tool used in the manufacture of an unpatented article. Rights conferred by patents are indeed very definite and extensive, but they do not give any more than other rights a universal license against positive prohibitions. The Sherman law is a limitation of rights, rights which may be pushed to evil consequences and therefore restrained."[39]

Of the six decisions cited in the opinion, only two—Bement v. National Harrow Company, and Henry v. A. B. Dick Company—related to patents. The court refused to use the Bement case as a precedent, as it involved merely the contractual relation between a patentee and a licensee; and added that the Dick decision contravened none of its views of the case at hand. It mentioned Montague and Company v. Lowry, United States v. American Tobacco Company, and similar decisions to substantiate its argument, and therefore placed this combination in the category to which other unlawful monopolies belong.

It is likely, according to a commentator on this case, that an

[39] 226 U. S. 20, 49.

important element in influencing the court in reaching its decision was that Wayman interjected himself into the situation and procured the patents and arranged the contrivance. If the corporation controlling the patent had itself made these arrangements, a different result might have been reached.[40]

MOTION PICTURES

The motion picture business arose from pioneer inventions near the end of the nineteenth century, and since then has enjoyed a phenomenal growth. The different factors engaged in this business are: (1) manufactures of motion picture films, cameras, and exhibiting machines; (2) rental exchanges or distributors of these films and machines to the exhibitors; and (3) exhibitors of these films to theater patrons.

In 1908, there were ten manufacturers or importers of motion pictures in the United States: namely, American Mutoscope and Biograph Company, New York City, a New Jersey corporation, known as the Biograph Company; Edison Manufacturing Company, Orange, N. J.; Essanay Film Manufacturing Company, Chicago, Ill.; Kalem Company, New York City; George Kleine, Chicago, a large importer of films, representing nine foreign companies; Lubin Manufacturing Company, Philadelphia; George Melies Manufacturing Company, Chicago, an important importer of foreign films, and also a producer of American films; Pathé Frères, New York City, a New Jersey corporation, an importer of films and an important producer of domestic films; Selig Polyscope Company, Chicago; and Vitagraph Company of America, Brooklyn, N. Y.[41] They sold and shipped their reels to exchanges throughout the United States, which in turn distributed them to thousands of exhibitors. For a while keen competition existed among all of these ten companies in selling their films to the exchanges and their projecting machines to exhibitors.

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[40] *Univ. of Penn. Law Review,* Vol. 62, Jan., 1914, p. 169.

[41] U. S. v. Motion Picture Patents Co., Original Petition, pp. 7-8.

The pooling of a few patents, license agreements, and their expeditious enforcement, however, soon brought this competition to an abrupt conclusion.

It came about in this way. The ten manufacturers organized the Motion Picture Patents Company to acquire patents relating to the motion picture art. Four of the ten companies—the Edison, Biograph, Armat, and Vitagraph—assigned their sixteen patents to the Patents company. This company never owned any property except the patents assigned to it, and these it agreed to reassign, upon dissolution, to their former owners without consideration.[42]

The Patents company granted uniform licenses to the ten companies, which gave them the right to manufacture and use motion picture cameras and to manufacture and lease motion pictures embodying the inventions covered by its patents. They agreed, among other things, to lease their films only on condition that they be used in exhibiting machines licensed by the Patents company; to lease films to exchanges in accordance with terms subsequently described; to lease films only to those exchanges that deal exclusively in the films of the ten manufacturers; and to lease films to exchanges at prices not lower than those stipulated in the agreement. Moreover, each manufacturer contracted to mark conspicuously on labels placed on all boxes containing films the conditions under which they could be leased by a rental exchange. Among others, (a) it might sublet but not sell the films; (b) it might permit the films to be exhibited only on motion picture projecting machines licensed by the Patents company; (c) it must not sublet the films at a lower price than that agreed upon in its contract with the manufacturer; (d) a violation of any of the conditions entitled the manufacturer to immediate possession of the films. The Patents company agreed to collect royalties of $2.00 a week from all exhibitors using motion picture projecting machines embodying its patents, to issue licenses to make and sell such machines upon the condition that they be used solely for exhibiting films leased by one of the ten manufacturers, and to charge a royalty of $5.00 on every such machine.[43]

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[42] U. S. v. Motion Picture Patents Co., Brief for the U. S., p. 72.

George Kleine, one of the nine licensees, but an importer and not a manufacturer, was licensed to import positive films, not exceeding 3,000 feet per week. In addition, he agreed to confine his purchases to two foreign manufacturers, Gaumont and Urban, although previously he had imported the films of nine or ten foreign manufacturers in amounts largely in excess of 3,000 per week. Later the Patents company licensed Gaston and George Melies to import not to exceed 1,000 feet of new subjects per week made in France by George Melies. These two individuals, defendants in the legal action brought by the United States against this company, did business in the name of the Melies Manufacturing Company, which became a licensee—the tenth—after nine of the manufacturers had received licenses from the Patents company.[44]

The next gradation of license agreements included the Patents company and the rental exchanges or distributors of motion pictures. As already indicated, the manufacturers could lease their motion pictures only to licensed distributors—those that complied with requirements prescribed by the Patents company. The license agreement between the Patents company and the distributors contained a complementary provision that the latter could lease motion pictures only from licensed manufacturers—those that conformed to restrictions already described.[45]

The licensed distributors submitted to conditions previously suggested, like those imposed upon the manufacturers. They agreed to sublease films for use only on projecting machines licensed by the Patents company; to deal exclusively in licensed motion pictures; to distribute pictures but not to sell or exhibit them; to distribute pictures only to exhibitors licensed and approved by the Patents company; to furnish pictures only to exhibitors not supplied by another distributor; to return to each licensed manufacturer on the first day of every month, commencing seven months from the first day of the month on which the agreement was executed, an amount of motion picture film in running feet equivalent to that obtained the seventh preceding month; to pay prices stipulated in the license agreement; etc. The Patents company agreed that all licensed distributors should be subject to uniform restrictions. It reserved the right to terminate or change the license agreement on fourteen days' written notice to the distributor.[46]

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[43] Original Petition, pp. 18-19. The parts of the contract relating to the Eastman Kodak Company are considered in detail in Chapter IV.

[44] *Ibid.*, pp. 17-20, 52-78.

[45] *Ibid.*, pp. 9, 10, 21, 80.

The Patents company granted licenses to about one hundred distributors; the remainder, some thirty or forty, were driven out of business. One should remember that the Patents company had the arbitrary power to cancel the distributor's license without cause upon fourteen days' notice. Circulars issued by the Patents company contained the names of distributors and exhibitors whose licenses had been cancelled.[47]

The Patents company, a few months after it granted licenses to most of the rental exchanges in the United States, proceeded to monopolize more completely the distributing end of the motion picture business. A corporation, the General Film Company, was organized to carry out the scheme. It had a capital stock of $2,000,000, later reduced to $1,000,000; each incorporator and director had business connections with one of the ten manufacturers of licensed pictures. The purpose of the corporation was to distribute all motion pictures and therefore to supplant the other rental exchanges. It bought 68 rental exchanges and drove others out of business by refusing to supply films to them and by employing other tactics. The withholding of films alone was sufficient to exterminate the small distributor, since the continuity of his business depended on a constant stream of new films. Other tactics consisted of price-cutting, discrimination, threats, and intimidations.[48] In

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[46] *Ibid.*, pp. 22-23.

[47] Brief for the U. S., pp. 219-229.

[48] Brief for the U. S., pp. 164-219; Hearings before House Com. on the Judiciary, Trust Legislation, 63d Cong., 2nd Sess., Serial 7, Vol. 2, pp. 475-485, 755; Supreme Court of the State of N. Y., N. Y. County, Greater N. Y. Film Rental Co. v. Motion Picture Patents Co. (exhibit special).

1909 only one of the former rental exchanges remained; with this one exception, the General Film Company became the sole distributor of motion pictures. It established 52 branches and the territory was divided among them.[49]

Twelve manufacturers of projecting machines became licensees of the Patents company. Each of the contracts enumerated 13 patents as the legal basis of certain restrictions and other provisions. The manufacturer agreed to sell its exhibiting machines, except those for export, under the condition that they should be used solely for exhibiting or projecting motion pictures leased by the ten manufacturers, and to attach a plate to each projecting machine setting forth this condition. Furthermore, the manufacturer contracted to sell each exhibiting machine at a stipulated price ($150), and to pay a royalty of $5.00 to the Patents company on every machine sold. The Patents company agreed that any additional licenses granted to other manufacturers of projecting machines would not be more favorable than the existing ones.[50]

One should next note the relationship between the Patents company and the exhibitors. Only exhibitors who secured licenses from the Patents company could show the films of the ten manufacturers. The exhibitor agreed to use upon his machines only pictures manufactured by the licensed manufacturers, and to pay to the Patents company a royalty of $2.00 per week on every exhibiting machine owned by him. As previously described, the manufacturers and distributors could furnish film only to those exhibitors who contracted neither to display films other than those made by the ten manufacturers nor to use projecting machines not licensed by the Patents company—in other words, films would be furnished only to licensed and approved exhibitors. Moreover, no two distributors could lease pictures to the same exhibitor.[51]

This system of licenses gave the Patents company the power of life and death over 7,000 exhibitors.[52] A new theater could not make a start, an old one could not continue business, unless the Patents company saw fit to grant a new license or extend the existing one, as the case might be.[53] The company cancelled many licenses because exhibitors showed unlicensed films. It used circulars or bulletins in informing and warning exhibitors of the license restrictions and other things concerning its plans and activities, such as a list of licensed exchanges, applications for licenses from old and new theaters, replevin suits, etc.[54]

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[49] Brief for the U. S., pp. 5, 246, 247, 250.

[50] Original Petition, pp. 26, 95.

[51] *Ibid.*, pp. 87-98.

The underlying factors of the foregoing account may be briefly summarized. Ten manufacturers of motion picture films sought to dominate the motion picture business, including its three phases of manufacture, distribution, and exhibition. The subterfuge consisted of a patent pool. They organized the Motion Picture Patents Company, to which four of them assigned several patents. These patents were used by this company as a "legal" basis for interlocking licenses granted not only to manufacturers of motion picture films and projecting machines, but also to distributors and exhibitors of these films. By leasing instead of selling films, and by enforcing stringent restrictions and conditions pertaining to them, the control of the motion picture industry seemed assured. Competition was practically eliminated both from within and without the combination; for example, no two distributors could supply films to the same exhibitor, and the various strata of the industry were compelled to use all or none of the machines and films of the monopoly. Moreover, contracts, royalties, penalties, etc.—all prescribed by the Patents company—were uniform as between any two of the four factors in the monopolistic hierarchy; namely, the Patents company, manufacturers, distributors, and exhibitors. Further, a manufacturer could not distribute or exhibit films, a distributor could not make or exhibit films, and an exhibitor could not make or distribute films—a situation which brought about functional specialization within the industry. The organization of the General Film Company changed the existing arrangements to a slight extent in that it meant control of the distribution of films by means of a subsidiary company instead of by a network of license agreements with rental exchanges.

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[52] Brief for the United States, p. 74.
[53] Original Petition, p. 24.
[54] Brief for the U. S., pp. 210-215, 219-239.

The government, as one would expect, brought suit against this monopoly for violation of the Sherman Act. The district court stated, "The end and purpose of the combination, and in this sense the motive or moving cause, further was not to protect the patent rights, which the Motion Picture Patents Company was organized to take over; but the control of the patents was made a feature of the scheme, in the belief, or at least the hope, that this would render the scheme (otherwise illegal) not open to the condemnation of the law." [55]

The court announced that either unlawful means or unlawful results may constitute "conspiracy" under the Sherman Act, saying: "If the end is monopoly, and the means the restraint of trade, the inquiry is directed to the character of the restraint. If that is undue and unreasonable, and was directly intended, and the monopolistic result flows as a direct, and not a merely incidental consequence, the combination through which it is brought about is illegal. The same conclusion follows a finding that the end is illegal, because reached through the same means. Indeed, the two things come to be, nearly, if not quite, the same, although there is room for a difference." [56]

The court concluded that the combination was illegal. "We conclude with the formal finding, in the language of the Act of Congress, that the contracts enumerated in the petition, and the combination there described, were a conspiracy in restraint of trade or commerce among the several states and with foreign nations, and were and are illegal, and that the defendants . . . have monopolized . . . a part of the trade or commerce among the several states and with foreign nations, consisting of the trade in films, cameras, projecting machines, and other accessories of the motion picture business." [57]

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[55] 225 Fed. Rep. 800, 811, Oct., 1915.

[56] *Ibid.*, p. 809.

[57] *Ibid.*, p. 811.

RAILWAY DEVICE

According to the testimony of a lawyer who appeared before the Oldfield Committee in 1912, a man had invented, several years before, a device for use in connection with the operation of railroads. He patented and manufactured and sold it. Soon competition sprang up until there were four manufacturers of this class of device; each had a patent on his particular form of the device. After two or three years of fierce competition, these various manufacturers got together. They assigned their patents to a trustee whose actions were controlled by a majority vote of the four manufacturers. They voted to eliminate some of the forms of the device then on the market, and confined themselves to the manufacture of one or two of the most efficient. Furthermore, they agreed that one of the parties should manufacture the device; that another should have charge of the sales; that the other two should retire; that the prices should be raised; and that the profits should be divided among them.[58] The individual who told of this pool would not reveal the names of its members. The author does not know of any government action designed to test its legality.

COASTER BRAKE

The New Departure Manufacturing Company and five other corporations were separately engaged in different states in the business of manufacturing bicycle and motorcycle coaster brakes and accessories, of a distinctive type and design from those made by other concerns, under certain patent license rights owned by them separately. By granting licenses to competitors, they sought to restrain trade in coaster brakes. A District Court in 1913, in passing upon the legality of this scheme, stated that "the asserted culpability of the defendants is primarily based upon the allegation that the defendant corporations were separately owners of patents and patent rights for improvements in the coaster brake and other bicycle and motorcycle accessories, differing from those held by the other corporation defendants, but that the defendants, to effectuate their plan or scheme to restrain trade, feigned the making of a license agreement ostensibly covering a part, but not the whole, of the coaster brake manufactured by the New Departure Manufacturing Company."[59] The indictment against the combination included the discontinuance of pending litigation between the various defendants, and agreement not to question the validity of any patents owned by licensees. This, in effect, meant the forced validity of all their patents per agreement. The court declared that "by the methods and acts complained of, the commingling of separate interests in separate patent rights, by the issuing of a pretended license for a pretended basic patent, with the intention of fixing uniform prices and discounts and imposing other conditions, benefits and advantages were secured which may be enjoyed only by a separate patentee in the protection of his true monopoly. It was such courses of procedure by industrial interests in whatever form or guise that the Anti-Trust Act was designed to check and prevent."[60]

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[58] Oldfield Hearings of 1912, No. 23, pp. 5-6.

OIL COMPANIES

The first indications of a patent pool maintained by oil companies was brought to the attention of the public in 1923. According to the LaFollette report on the high cost of gasoline and other petroleum products, the Standard Oil Company of New Jersey and the Standard Oil Company of Indiana, now owe a part of their power to the control of patents relating to the "pressure" or "cracking" process of manufacturing gasoline. According to this process, the residue which remains after the removal of gasoline from the oil by distillation, is subjected to great pressure and heat. It is "cracked," thus releasing the lighter elements, and a further supply of gasoline is obtained. This process may be repeated as often as found to be commercially profitable. "The testimony on this subject shows that a refinery which has the additional equipment necessary to operate what is called the "cracking" process can produce substantially double the amount of gasoline out of the same grade of oil as can the refinery which has not that process. In this situation it is obvious that so long as gasoline is the controlling factor in the value of a barrel of crude oil, that refinery which is without a cracking process cannot compete with one that has it."[61]

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[59] 204 Fed. Rep. 107, 112.

[60] *Ibid.*, pp. 110, 115.

According to this report, the Standards of New Jersey and Indiana control what they claim to be basic patents, and the right to operate them, they lease to other companies under some royalty basis, usually with the provision that the gasoline produced by the patents shall not be sold except in certain territory and with the right reserved to the leasing company to buy back a certain proportion of the gasoline thus produced at an agreed price. Both of these companies are active in warning all the independents against the use of cracking processes, claiming, in some cases at least apparently without justification, that the cracking processes which independents were seeking to use were in violation of Standard patents, and thus for years, through threats and institution of suit, the industry generally has been deprived of processes by which the production of gasoline could be doubled.[62]

In June, 1924 the United States brought suit against the Standard Oil Company of Indiana, Standard Oil Company of New Jersey, Texas Company, Gasoline Products Company, and forty-seven other oil concerns.[63] The defendants, according to the government's brief, have formed a patent pool for the purpose of restraining trade in gasoline, kerosene, and other hydro-carbon products. The patents in question relate to the "cracking" processes of making gasoline.[64] However, the government contends that they are not basic in character, and therefore are but a device to lend color of legality to the combination.[65]

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[61] Senate Report No. 1263, 67th Cong., 4th. Sess., pp. 49-50.

[62] *Ibid.*, p. 50.

[63] U. S. vs. Standard Oil Co. (Indiana), Standard Oil Co. (New Jersey), Texas Co., Gasoline Products Co. et al., In the District Court of the U. S., Northern District of Ill., Eastern Division, 1924, government's petition.

[64] For an additional description of these processes, consult *Ibid.*, pp. 9-13.

The defendants are classified as primary and secondary. The "primary" includes the oil companies already mentioned, and in addition the Standard Development Company;[66] and the "secondary" embraces all other defendants. The primary defendants are so-called for these reasons: (1) the broad scope and importance of their asserted patent rights; (2) their alleged patent rights are, by a system of cross agreements, handled substantially as a unit or pool in dealing with their licensees, assignees, and grantees; (3) they are primarily responsible for the institution and continuation of the unlawful conditions and practices in question. The secondary defendants are parties to agreements with one or more of the primary defendants by which they have been given certain alleged patent rights, privileges, or immunities as assignee, grantee, or licensee. They are, according to the government, subscribers to rather than the promoters of the combination, "they being unable to secure manufacturing privileges under any of the alleged patent rights controlled by the primary defendants without agreeing to such trade restrictions and other terms as the primary defendants see fit to impose, and they being unwilling to incur the hostility of the primary defendants by employing the cracking processes without their consent."[67]

The primary defendants entered into, one with another, a series of agreements according to which alleged rights were conveyed to each other under their respective patents. "By granting rights under prospective as well as existing patents provision was made for extending the combination and monopoly beyond the life of any patents now owned by the defendants. Each thus protected its patents and asserted rights against attack by the others and they were enabled to present a solid front to all manufacturers of gasoline who were compelled by competition to avail themselves of the economies resulting from the use of the cracking process."[68] These agreements provide for the payment of royalties ranging from a half of a cent to a cent and a quarter per gallon on gasoline produced by the cracking process for domestic consumption. Moreover, they include numerous oppressive conditions which directly impede and restrain trade by restricting production and by securing a virtual monopoly in particular territories to certain defendants, more especially the Standard Oil Company of Indiana. These agreements not only purport to convey manufacturing rights but also authorize the respective licensees to grant sublicenses containing like onerous restrictions.

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[65] Senate Report No. 1263, 67th Cong., 4th. Sess., pp. 12-13.

[66] To the extent that its parent company, Standard Oil Company of New Jersey, has conveyed to it patents relating to the cracking processes.

[67] *Ibid.*, p. 14.

The government contends that the secondary defendants, per necessity, have accepted licenses under the pooled patents of the primary defendants. They have agreed to the huge royalties and oppressive conditions already mentioned. In addition, each secondary defendant "has estopped itself from hereafter questioning the validity of the patents under which it is licensed, and in a majority of instances such licensees have reciprocally agreed to license the primary defendants under any patents relating to the cracking arts which they have or may obtain in the future."[69]

"The effect of the foregoing agreements," according to the government's brief, "has been to pool a large number of patents and alleged patent rights relating to minor processes in a long practiced art which, if valid at all, constitute no or but slight improvements in the art—improvements so insignificant as to afford no consideration for contracts in restraint of trade; to estop all parties to the plan both primary and secondary from in any manner contesting the validity of said asserted patents and patent rights; to burden the interstate and foreign trade and commerce in gasoline, kerosene, and other hydrocarbon products by levying thereon heavy charges in the guise of royalties; to provide for the perpetuation of the plan beyond the life of any of the existing alleged patent rights by providing for a pooling of after-acquired patents; to restrict

[68] *Ibid.*, p. 15.

[69] *Ibid.*, p. 16.

many of the licensees in the amount of gasoline which they may produce for interstate sale and transportation by fixing a limitation of the production or by imposing a graduated scale of royalties which penalize production over a certain amount by making it unprofitable; to restrain interstate and foreign trade and commerce by prohibiting directly the movement of large supplies of gasoline and other unpatented commodiites in such commerce; and to secure to the defendant, the Standard Oil Company of Indiana, a virtual monopoly of trade and commerce in said commodities in the fifteen States referred to as its territory."[70]

This patent pool, involving practically all the oil companies in the United States, is, it would seem, the most inclusive and important one of which any record exists. The case is now in a District Court of the United States, and it is likely that the public will wait several years before the rendition of a final judicial decision.

RADIO CORPORATION

The Marconi Wireless Telegraph Company of America, organized in 1899, was the first company in the United States created for the purpose of engaging in the transmission of messages by wireless. It had a capitalization of $10,000,000, of which about 25 per cent was owned by the Marconi's Wireless Telegraph Company of Great Britain. The American company had the exclusive right to use and exploit the patents controlled by the British corporation. It enjoyed practically a monopoly of the ship-to-shore communication business. The United Fruit Company obtained a few radio patents and a license from the Marconi company under certain of its patents. Its vessels, operated in connection with its tropical fruit business, were equipped with wireless apparatus. It constructed stations in Boston, New Orleans, and a few points in Central America from which a commercial service was maintained. The Federal Telegraph Company of California, organized in 1911, operated a ship-to-ship and ship-to-shore service on the Pacific coast. These three companies already mentioned were the principal manufacturers of radio apparatus. The three large electrical companies—General, Westinghouse, and Western—did not, prior to the war, sell radio apparatus, although they had done considerable research work relating to it.[71]

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[70] Senate Report No. 1263, 67th Cong., 4th. Sess., pp. 52-53.

In 1917 the British Marconi Company began negotiations for the exclusive rights to an invention of the General Electric Company, useful especially in long-distance communication. The officials of the Navy Department suggested that an American radio corporation be formed to which the rights in this machine be sold and thus enable it to compete with British interests. The General Electric Company commenced negotiations for the purchase of the British Marconi Company's holdings in the Marconi Wireless Telegraph Company of America, with a view of organizing a new company to carry on the radio business. It was largely responsible for the organization of the Radio Corporation of America, October 17, 1919, with a capital of $25,000,000 of preferred stock and 5,000,000 shares of common stock without par value. In 1922 there was outstanding on the books of the corporation 5,734,000 shares of common stock and 3,955,974 shares of preferred stock distributed largely as follows:

Name	Common	Preferred
General Electric Company	1,876,000	620,000
Westinghouse Electric & Manufacturing Company	1,000,000	1,000,000
American Telephone & Telegraph Company	....	400,000
United Fruit Company	160,000	200,000

The remainder of the stock is held largely by the former stockholders of the American Marconi Company.[72] On November 20, 1919, the Radio Corporation issued 2,000,000 shares of preferred stock in exchange for the physical properties, patents, licenses, and good will of the Marconi company. The companies mentioned are represented on the board of directors.[73]

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[71] Radio Industry, 1923, Federal Trade Commission, pp. 1-2, 11-18.

[72] The American company subsequently disposed of its stock because, according to its vice-president, "brokers were advertising this stock ownership to induce the public to invest in the stock, which tended to create a moral obligation on this company's part which it did not wish to assume." *Ibid.*, pp. 20-21.

"The Radio Corporation has entered into agreements with the various companies which own or control practically all patents covering radio devices considered of importance to the art. The number of patents involved approximates 2000. Agreements of this character have been entered into with the General Electric Company, Marconi's Wireless Telegraph Company (Ltd.), American Telephone and Telegraph Company and its subsidiary, the Western Electric Company, the United Fruit Company and its subsidiary, the Wireless Specialty Apparatus Company, the International Radio Telegraph Company, the Westinghouse Electric and Manufacturing Company, and the Radio Engineering Company of New York. With certain minor limitations, the Radio Corporation under these agreements has secured an exclusive divisible right to sell and use the radio devices covered by the patents involved or by patents which these companies may acquire before the termination of the agreements. The agreements with the American Telephone and Telegraph Company and the Western Electric Company are to terminate in 1930, while the remainder are to terminate in 1945. Provision is made for the mutual exchange of information relating to radio, and, in most instances, the Radio Corporation has granted to the other Company a license under its patents to make and use devices in the particular field in which the other Company is interested." [74]

The Radio Corporation, under these agreements, is made the selling company for practically all radio devices to be sold the public under the hundreds of patents involved. The General Electric Company and the Westinghouse Electric and Manufacturing Company are to manufacture and to sell to the Radio Corporation only, these devices and apparatus, the

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[73] Radio Industry, 1923, Federal Trade Commission, pp. 2-3, 18-22.

[74] *Ibid.*, pp. 3-4.

Radio Corporation agreeing that 60 per cent of its annual requirements would be purchased from the General Electric Company and 40 per cent from the Westinghouse Company. In the sale of receiving sets the Radio Corporation has competition from seventeen concerns. In communication by radio between ships at sea and the shore, it is the dominant factor.[75] Moreover, this company is "the only concern now engaged in transmitting and receiving radio messages between the United States and foreign countries and contends that in order to function properly it must of necessity secure a monopoly in this field. The company has secured a virtual monopoly and controls all the high-power stations with the exception of those owned by the Government. In addition, it has entered into traffic agreements with the various foreign Governments and radio companies, the majority of these agreements providing that all messages intended for the United States shall be transmitted only through the facilities owned by the Radio Corporation of America."[76]

"The refusal to sell or lease apparatus to competitors for international communication purposes is included in the well-defined policy of the Radio Corporation of America. It also affixes to the apparatus sold a license notice, the object of which is to restrict the purchaser's use of the device to amateur and experimental purposes. In supplying ships with apparatus, devices, and appliances, the ship owners are required to execute an agreement which provides that the apparatus or appliances furnished by the Radio Corporation are licensed only for use on board ships and aircraft in communications destined to or originating on such ships or aircraft."[77]

The Radio Corporation distributes its products chiefly through wholesale concerns handling electrical supplies. There is no substantial evidence to indicate that it attempts full line forcing, or compels other companies to admit the legality of its patents. The Federal Trade Commission submits no conclusions in its report as to whether the facts disclosed constitute a violation of the antitrust laws.[78]

[75] *Ibid.,* p. 4.

[76] *Ibid.,* p. 5.

[77] *Ibid.,* p. 6.

[78] *Ibid.,* pp. 6-7, 75-76.

Defects

The foregoing account of the harrow, seeded raisin, rubber tire, wind-stacker, and liquid door check pools reveals suits against members who violated the terms of their license agreements; it clearly shows the lack of stability and endurance of this form of organization. Some of these pools, notably the liquid door check, bath-tub, motion picture, and coaster brake were actually illegal. These two defects of patent pools, instability and illegality, led to other schemes to defeat the Sherman Act by means of patents, as set forth in the following chapters.

CHAPTER III

PATENT CONSOLIDATIONS

The instability and illegality of patent pools indicated the necessity of other forms of organization. These defects, it seemed, could be avoided by the outright ownership of all patent rights pertaining to a particular industry.

Two Methods of Acquiring Patents

Two general methods of carrying out this scheme may be distinguished. The first consisted of the consolidation of former competitors by means of a merger or an amalgamation.[1] One corporation, according to this plan, acquired completely the plants, patents, etc., of competitors. Without patents the result would have been monopolistic in character; with patents, it was assured of the strength of its position. Competition could not appear readily because a competing line of inventions as well as a large supply of capital would be necessary.

The other method was the purchase only of the patent rights of individuals and companies, without any attempt to acquire the plants of competitors. This method was most expedient and effective for a concern which already occupied a prominent position in its field. By acquiring the patents of others it ultimately attained a monopoly.

These two methods—the consolidation of companies possessing patents, and the securement of patents only from miscellaneous sources—were employed at the same time in some instances. For example, the Eastman Kodak Company purchased the plants, patents, etc. of other companies at the same time that it acquired patents from individuals and others. Furthermore, the second method was usually a sequel of the first. After the consolidation of various companies, it was necessary, in order to perpetuate its monopolistic power, to acquire other and relevant patents.

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[1] For a description of these forms, see Haney, *Business Organization and Combination*, p. 241.

REASONS FOR ACQUIRING PATENTS

The Oldfield Committee in its report of 1912 stated, "Capital seeking to control industry through the medium of patents proceeds to buy up all important patents pertaining to the particular field. The effect of this is to shut out competition that would be inevitable if the various patents were separately and adversely held. By aggregating all the patents under one ownership and control, using a few and suppressing the remainder, a monopoly is built up that is outside of and broader than any monopoly created by the patent statutes. It is 'monopoly of monopolies' and is equivalent to a patent on the industry as such."[2]

Other considerations may encourage the acquisition of patents either by consolidation of various companies or by the purchase of patent rights by a single company. An industrial monopoly may acquire a rival and basic invention in order to prevent the scrapping of its existing equipment. The American Telephone and Telegraph Company, it is said, obtained the patents on the automatic telephone after its installation in several cities, so that it would not displace telephone equipment of the old type in which millions of dollars were invested. Until the Clayton Act of 1914 and subsequent decisions of the Supreme Court declared tying clauses illegal, many corporations obtained patents in order to have apparently a legal basis for dictating the use of supplementary supplies, and maintaining resale prices of their patented articles.

The president of the Boyleston Manufacturing Company, in discussing the leasing of machines by the United Shoe Machinery Company stated in 1914 that the United company had a provision in its leases which gave it the right to add new parts to its machines and therefore extend its patent protection. For example, if the patent on a machine was about to expire, this company could take off any part of the machine, put on another part recently patented, and therefore extend its patent monopoly. In some instances a new but insignificant device would be attached to the old machine without removing any of its parts. Practices of this sort enabled the United company to maintain a "legal" basis for the enforcement of its tying clauses.[3]

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[2] Oldfield Report of 1912, p. 5.

A consolidation makes possible the distribution of special processes and patents. The good inventions of several companies may be combined and the poor ones discarded, with the consequent improvement of the machines, etc., to which they relate. Improvement patents subsequently acquired may be incorporated into the inventions already in use. The acquisition of patents solely for the purpose of perfecting machines, processes, and the like should not be confused with acquisition for obtaining a monopoly. The one may be justifiable while the other deserves condemnation.

Another cause of the acquisition of patents arises from litigation. A patent may be purchased because it presents some offensive possibility as the basis of an expensive suit for infringement. Further, if litigation is waged between equal competitors, the "long-continued uncertainty due to the necessarily protracted proceedings, and the huge expense, are apt to suggest combination as a solution of their differences; and in the end they join together in exploiting the public."[4]

Sources of Patents

Independent Inventors. The corporation acquires its patents from various sources by assignments and licenses. Many patents are obtained from independent inventors and other companies. Patents as issued appear in the Official Gazette of the Patent Office, and therefore are advertised free throughout the United States. If the patent is deemed of sufficient importance, a corporation may advance offers to the individual inventor for his patents. Usually, however, the inventor solicits the corporation to buy his patents.

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[3] Oldfield Hearings of 1914, Part 8, p. 150; these tying clauses are described in the next chapter.

[4] Oldfield Report of 1912, pp. 22-23.

The industrial monopoly usually purchases its patents at bargain prices. It enjoys a monopoly in buying patents that relate to the particular industry and therefore can practically dictate their prices. Moreover, it controls basic and important improvement patents. Improvements cannot be legally used in connection with them without its consent. Thus the corporation has an additional advantage in bargaining with those who have made slight improvements. This situation arose when Edison, Blake, and Berliner improved Bell's telephone. Their improvements, though very important, could not be utilized without employing the basic invention. The result was that their patents came under the control of the owners of the Bell patents.[5]

Further, the amount and expense of patent litigation serve as a handmaid to the large corporation in quest of patents. As Edison has stated, "The long delays and enormous costs incident to the procedure of the courts have been seized upon by capitalists to enable them to acquire inventions for nominal sums." [6] The Inventors' Guild asserted, in 1912, that under existing methods of trying patent cases an inventor of average means could not, at his own expense, carry to a conclusion an average patent litigation against a wealthy opponent, and therefore a few large corporations usually acquire practically all important patents in their field.[7]

If the monopoly refuses to buy patents, as it often does, the inventor is practically helpless, in that the only possible purchaser of his patent has given him a negative answer. Slight improvements dependent on its patents present little or no possibilities of competition, and therefore it may well afford to ignore them. A basic and rival invention may be purchased and suppressed to prevent the scrapping of existing equipment. If it is not acquired and is later developed by another company, the monopoly may resort to other tactics.

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[5] Prindle, *Patents as a Factor in Manufacturing*, pp. 28-29.
[6] Oldfield Hearings of 1912, No. 23, p. 32.
[7] Oldfield Report of 1912, p. 24.

In 1912 the editor of the Inventors' Outlook stated before the Oldfield Committee that Delaney, the inventor of a system of automatic telegraphy, tried for years to get the Western Union and Postal Telegraph companies to adopt it. The installation of the system, according to his opinion, would be desirable. These companies, however, refused to adopt it, as they thought its introduction would result ultimately in the reduction of dividends. Delaney, after a bitter fight, organized the Telepost Company. This company, after securing a foothold in New England, failed because its credit was influenced by other interests. The Western Union and the Postal installed the night and day letter system, which was really compelled by the Delaney service and the Telepost Company.[8]

Inventors Employed by Corporation. Another source of inventions, especially of those that insure the continuation of the monopoly, is the corps of scientists and inventors employed by the corporation. These men usually receive fixed salaries for their inventive endeavors in return for the assignment of patents covering their inventions to the corporation. The inventors attack the problems as they are presented and work them out in well-equipped laboratories. Moreover, an industrial monopoly based largely on patents may easily prosecute its applications in the most approved manner, make validity searches, and carry through elaborate and expensive interference and infringement suits. The corporations, keeping in view the time when the patents on their present products will expire, endeavor to have new ideas similarly protected and ready to put on the market when the patents under which they are at present working expire.

Former Examiners of Patent Office. Some of the experts of the corporation who further its designs to continue its monopolistic power are former examiners of the Patent Office. According to the Commissioner of Patents in 1919, some of these men resign from a division and go into practice for a corporation having applications in that same division. They are not only familiar with all its applications for patents, but they have studied the cases of rival companies or of independent inventors.[9] Finally, the corporation usually requires its laborers, those who attend machines and perform other kinds of manual labor, to agree that any inventions which they may conceive shall be assigned to it.

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[8] Oldfield Hearings of 1912, No. 6, p. 19.

Illustrations of the methods of acquiring patents, the reasons for obtaining patents, and the sources of them, will be presented in the following description of companies which represent patent consolidations.

The American Tobacco Company

This company, created in 1890 and capitalized at $25,000,000, represented a consolidation of five manufacturers of cigarettes which made 95% of the total output of the United States.[10] This combination owed its success in no small degree to the control of important patents relating to the tobacco industry. In fact, the possibility of acquiring exclusive control of certain cigarette-making machines furnished a strong incentive to its creation.

The American company, a short time after its formation, contracted with the Bonsack Machine Company for the exclusive use of its machine, the most successful one on the market. It was stipulated that the American company might cancel this agreement if the Bonsack company failed to secure for it such exclusive use before March 1, 1891, or if as many as 100 million cigarettes should be made in the United States in factories of other concerns on machines not controlled by the Bonsack company. The American company was to pay a royalty of $250,000 annually during the life of the contract; it covered three years with the privilege of renewal at the expiration of this time by the tobacco company.

Pursuant to this agreement, the Bonsack company terminated its outstanding contracts with other manufacturers.

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[9] Nolan Hearings of 1919, p. 241.
[10] 221 U. S., pp. 106, 156-157.

In 1895, owing to adverse judicial decisions, the American Tobacco Company lost its exclusive right to the use of the most important parts of this machine. It ceased to pay royalties January 1, 1896 and purchased the Bonsack machines it was then using. However, in spite of this fact, it should be borne in mind that this combination had the exclusive use of this machine for five years, a period long enough to enable it to acquire a dominant position in the cigarette business.

Moreover, the control of other cigarette machines helped the combination to attain its goal. It acquired the patents on the Allison cigarette machine. But this machine, not proving satisfactory, was not used. This combination also obtained exclusive control of the Emery cigarette machine in its acquirement of Goodwin and Company.[11] In 1892 it secured the exclusive American rights to the De Coufle patents pertaining to a crimping attachment to the cigarette machine.

The general policy of the American Tobacco Company to obtain any and all patents relating to any phase of the tobacco business is borne out by the purchase of other patents. It purchased a majority of the stocks and bonds of the Health Tobacco Company, incorporated in the previous year, 1898, with an authorized capital of $1,000,000, the owner of an alleged invention for rendering tobacco harmless to the smoker. It continued to own a controlling interest in this company, although the enterprise itself was a failure. Also, in 1899 the American Tobacco Company began to buy the stock of the Standard Tobacco Stemmer Company, and in 1906 held nearly all of the outstanding stock. The Standard company had secured a patent for a tobacco-stemming machine, and the American company wished to prevent its possible development and use by competitors. In 1899 the American company also bought $75,000 of the stock of the Golden Belt Manufacturing Company, increasing its investment until it held in 1907 $652,100 of the $700,000 outstanding stock of this company. The Golden Belt Company owned patents for the manufacture of tobacco bags and the cloth from which they are made, and its business was very profitable.[12]

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[11] Report of the Commissioner of Corporations on the Tobacco Industry, Part I, pp. 64-67.

The tobacco trust dominated the cigarette business first owing to "the special adaptability of the cigarette making to the use of machinery, the exceedingly rapid growth of the cigarette industry, its concentration in a few large factories, the intensity of competition among these, and the control of the best cigarette machines by a few men through patents."

The greater efficiency realized in manufacturing cigarettes by machines was set forth in an annual report of the United States Commissioner of Labor. The labor cost of a certain cigarette made by hand in 1876 was 96.5 cents per thousand; by machine in 1895, only 8.1 cents. By 1884 the daily output of a single Bonsack machine was 120,000 cigarettes—fifty times as many as a rapid cigarette roller could produce in a day by hand. The output of cigarettes increased from 599 millions in 1882 to 2.5 billions in 1890, a total which shows the tremendous growth in the importance of the cigarette branch of the tobacco business.[13] The domination of this one branch meant initial success in the attempt to control the tobacco industry—a success due to the use of machinery in cigarette making, and to the control of such machinery through patents.

The strength of this combination in the little cigar business since 1899 was chiefly attributable to its control of patented machinery which could be used in making little cigars.[14]

The importance of the adaptability of the tobacco business to machinery, and of the control of such machinery through patents, was shown by the difficulties of this monopoly in acquiring domination of the cigar business. In all but the cheaper grades of cigars the greater part of the process was carried on by hand, so that the small concern was at little disadvantage in competing with a large company. Only the introduction of machines to manufacture completed cigars, and control of the patents covering such machines giving a greater efficiency in production, would have enabled the trust to become the master of the cigar business.

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[12] Report of the Commissioner of Corporations on the Tobacco Industry, Part I, p. 85.

[13] *Ibid.*, Part I, p. 63.

[14] *Ibid.*, Part I, p. 31.

The American Tobacco Company, realizing this situation, purchased in 1899, 52 per cent of the outstanding stock of the United States Cigar Machine and Manufacturing Company, a corporation for the development and manufacture of cigar machinery. In 1901, the American Tobacco Company incorporated a new concern, the International Cigar Machinery Company, taking 51 per cent of the stock. In 1905 it transferred part of this stock to the American Cigar Company, which experimented with cigar machinery; it used machines in manufacturing the cheaper grades of cigars and in supplementing hand labor in making the better grades.[15]

But the experiments with machines for making the better grade of cigars ended in failure, and even to-day machinery is little used in making them. Primarily for this reason the tobacco trust was never successful in maintaining substantial control of the cigar business.

In 1911 the United States Supreme Court ordered the dissolution of the American Tobacco Company, but gave no specific attention to patents.

The American Steel and Wire Company

The American Steel and Wire Company of New Jersey was organized in 1899 with a capitalization of $90,000,000. Its most important precursors were the Consolidated Steel Wire Company of Illinois and the American Steel and Wire Company of Illinois. The former, organized in 1891, was merged with the latter in 1898. The latter in turn, with several competitors, was consolidated into the New Jersey company in 1899.[16] This company manufactured principally barbed wire, woven wire, plain wire, and wire nails. It furnishes the illustration par excellence of an industrial monopoly built up largely through the control of many patents, as revealed in the following testimony of the chairman of the company, John W. Gates:

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[15] *Ibid.*, Part I, p. 38.

[16] House Report No. 1127, 62nd Cong., 2d Sess., Investigation of U. S. Steel Corporation.

> "Q. There has been, as I said before, a very decided increase in the difference of price between barbed wire and smooth wire, and also between steel and smooth wire, but no increase in the difference between wire and wire nails; what is the explanation of that? A. The price of barbed wire has advanced more than the price of smooth wire, has it not?
>
> "Q. Yes; by 50 per cent. A. That is no doubt due to the fact that we have a monopoly of the barbed wire. We practically own every patent on barbed fence wire and machinery in existence in the United States, and we claim that no one can manufacture barbed wire without infringing our rights. We paid a great many hundred thousand dollars for these patents, a great many hundred thousand dollars more in litigating and sustaining them. We sustained one recently in the Supreme Court.
>
> "Q. So that, so far as the price of barbed wire is concerned, you have a decided advantage in having practically a complete monopoly of the patents? A. Yes. . . .
>
> "Q. The price of wire nails has not gone up, while the price of smooth wire and barbed wire has doubled almost. A. We claim a perfect right to put any price on barbed fence wire that would seem justifiable, on the ground that we have paid out hundreds of thousands of dollars for patents. We do not claim that right on the others.
>
> "Q. You have acquired a patent monopoly, and you justify it then? A. Yes. The granting of a patent gives a man a monopoly, as I understand it, if he has a good patent."

This monopoly controlled 85 per cent of the manufacture and sale of barbed wire in the United States. In justifying the high price of this commodity, the following testimony was given by Mr. Gates:

> "But our control has been acquired by patents, which we have either gone and bought in the open market or paid others for, and we have paid out—in purchases of patents and in the litigation to establish them in the last 20 years—I should suppose, $5,000,000 or $6,000,000. They have paid out millions of money, and if you would eliminate that, I presume that prices might have been lower. I am willing to concede that."

By means of patents the American Steel and Wire Company also acquired a monopoly of woven wire fencing as well as barbed wire, disclosed by the following testimony:

> "There is a great deal of woven wire fencing made in this country. We claim a monopoly under patents of most of the woven wire fencing. We made the past year about 25,000 miles of woven wire fencing under patents that we purchased, and we get a very much larger profit on that than we do on the plain fence wire or even barbed wire or wire nails, for the reason that we own the patents on the machines and the patent on the product."[17]

Mr. Gates also testified that the elimination of much patent litigation was one of the advantages derived from the formation of the New Jersey company.[18]

There is no available record of any other concern which has spent as much money in getting patents and in defending them in the courts as the American Steel and Wire Company of New Jersey and its predecessors. One cannot find a better illustration of the abuse of the patent system than the practice of this company in acquiring an aggregate monopoly of what might otherwise have been a set of individual monopolies in competition with each other.

UNITED SHOE MACHINERY COMPANY

The most important group of machines for making shoes are the lasting machines, the welt-sewing machines, the outsole-stitching machines, the heeling machines, and the metallic-fastening machines.[19] Other shoe machines include the cutting-out and eye-letting machines.[20] These machines are used in attaching soles to uppers, a process called the bottoming of shoes.[21] In 1899 the Consolidated and McKay Lasting Machine Company under letters patent made 60 per cent of the lasting machines manufactured in the United States; the Goodyear Shoe Machinery Company, 80 per cent of all the welt-sewing and outsole-stitching machines; the McKay Shoe Manufacturing Company, 70 per cent of all the heeling machines, and 80 per cent of all the metallic-fastening machines.[22]

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[17] U. S. Industrial Commission, Report, 1900, Vol. I, pp. 1009, 1010, 1033.

[18] *Ibid.*, p. 1030.

[19] 227 U. S. 202, 215.

[20] A description of these machines may be found in 195 Fed. Rep. 589, and in U. S. v. United Shoe Machinery Co., Brief for the United States No. 207, pp. 7-15.

[21] 247 U. S. 32, 35.

In 1899 the United Shoe Machinery Company was incorporated under the laws of New Jersey, with an authorized capital stock of $25,000,000. It acquired all the stock of the following concerns: Goodyear Shoe Machinery Company, International Goodyear Shoe Machinery Company, Consolidated and McKay Lasting Machine Company, McKay Shoe Machinery Company, Davey Pegging Machinery Company, Eppler Welt Machine Company, International Eppler Welt Machine Company.[23] The last two companies were acquired by the new company after its formation, but they may be regarded as constituent companies.[24] The United company represented an amalgamation of these seven concerns; it acquired all their assets, including extensive patent rights.[25] The United company, as an operating concern, concentrated its manufacture of shoe machinery at Beverly, Massachusetts. A circular letter was sent by the directors of the Goodyear company to the stockholders of that company announcing the organization of the United company and inviting their participation; excerpts from this letter may indicate the purpose of the United company:

"The great advantages to be secured by the control in one corporation, both in the United States and foreign countries, of the most efficient types of shoe machinery have been for several years recognized by the officers of the principal shoe machinery companies. For more than a year your directors and large stockholders have been in negotiations to accomplish this end.

"The United company will also from time to time acquire other shoe machinery properties, either by direct ownership or by purchase of shares of their stock."[26]

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[22] 227 U. S. 202, 215.

[23] Brief for the United States, No. 207, pp. 4-5.

[24] 247 U. S. 32, 39.

[25] The United Shoe Machinery Corporation, a holding company incorporated in New Jersey in 1905, acquired substantially all of the capital stock of the United Shoe Machinery Company. Brief for the U. S., pp. 5-6.

[26] *Ibid.*, p. 54. Also 247 U. S. 32, 41-42.

The United States Supreme Court did not regard this letter as evidence of illegal intent.[27] Justice Clarke, however, in a dissenting opinion, stated, "I cannot share in estimating this circular as simply a naïve expression of unusual business foresight. It was a confidential circular, boldly phrased, perhaps because its authors thought that their combination had been given a character of merger which could withstand Government attack, but which this court has since repeatedly held is a mere subterfuge of form. The circular is an accurate description of what had been accomplished and of what, as we shall see, the evidence in the record shows, was intended to be done in the future." [28]

After the formation of the United company, it acquired the shoe machinery business and assets of 57 individuals, partnerships, and corporations.[29] For example, "On January 30, 1900, the company purchased, for the sum of $38,000, the business and assets, including twenty United States and foreign patents and 138 lasting machines, of the Seaver Process Lasting Company. This was the only independent company putting lasting machines on the market after the combination was formed, and it removed the last vestige of competition in the lasting machine business. . . .

"The history of the first year of this company would not be complete without reference to the fact that the combinations and purchases made during that year resulted in collecting under one control many hundreds of patents covering every 'shadow of a shade' of variation in the parts of the many machines used in the manufacture of shoes." [30]

The most important purchase by the United company involved the Plant assets. In 1910 Thomas G. Plant, after several years of effort, had developed a complete line of shoe machines for manufacturing welt, turn, and McKay shoes, with which he successfully equipped a shoe factory. With this new competition threatening the monopoly of the United company, the latter proceeded to purchase the Plant assets. The most important part of the property acquired, from the standpoint of the power and perpetuity of the United company, consisted of Plant's patents, as follows: (a) 206 United States patents; (b) 28 applications for United States patents; (c) 74 British patents; (d) 21 applications for British patents; (e) 73 French patents; (f) 14 applications for French patents; (g) 42 German patents; (h) 47 applications for German patents; (i) 26 Austrian patents; (j) 58 applications for Austrian patents; and (k) 33 Australian and 11 New Zealand patents.[31] The United company also acquired the shoe machinery and shoe factory of Plant and certain business contracts, for all of which it paid $6,000,000.[32] According to the government's brief, the United company bought these properties because they belonged to a growing competitor; Plant's patents and machines represented, to a great extent, new means of accomplishing results already efficiently attained by the machinery of the United company. Its apparent object was to acquire and suppress them and therefore prevent competition.[33]

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[27] 247 U. S. 32, 43; considered later in greater detail.

[28] *Ibid.,* pp. 83-84.

[29] *Ibid.,* p. 86.

[30] *Ibid.,* pp. 86, 87, Justice Clarke's dissenting opinion with which Justices Day and Pitney concurred.

The United company sought to acquire the patent rights and inventions of professional inventors and employees. It contracted with 95% of the inventors of shoe machinery for the entire product of their inventive skill.[34] The employees of the United company agreed to assign to this company all their inventions pertaining to shoe machinery which they might conceive while in its employment. These two classes—professional inventors and employees, those who have invented and those who may invent shoe machinery—bring forth nearly all the inventions. By controlling this fountain of inventive genius, it was possible for the United company to perpetuate its monopoly of patents on shoe machines.

The history of the United company—the original consolidation of seven shoe machinery companies, the 57 other acquisitions, and procurement of the patents of professional inventors and employees—suggests that its policy was to obtain practically all patents relating to shoe machinery—to acquire a monopoly of individual monopolies relating to a particular industry. It should be remembered that shoe machines have been invented and perfected within the past few decades. Basic patents covering some of them had not expired and improvement patents covering all of them were still in force. The United company controlled nearly all of these patents—thousands of them. Moreover, the United company leased its machines subject to "tying" clauses which compelled the shoe manufacturer to obtain either all or none of the shoe machinery required in his factory from this company.[35] In order to compete effectively with the United company it was necessary, in view of its control of shoe machinery patents and its system of tying clauses, to invent shoe machines and perfect others—in other words, to offer a complete and new line of shoe machinery to the shoe manufacturers. This meant a tremendous and hazardous undertaking; it was attempted only by Thomas G. Plant.

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[31] Brief for the United States, pp. 105-106.

[32] *Ibid.*, pp. 106-109, 110, and 247 U. S. 32, 49.

[33] *Ibid.*, pp. 122-125.

[34] United Shoe Machinery Company v. La Chapelle, 99 N. E. 289, 290. Illustrations of this policy may be found in the dissenting opinion of Justice Clarke in 247 U. S. 32, 84-85, May, 1918.

The patents and the tying clauses of the United company enabled it to control more than 95 per cent of the entire business of shoe machinery in the United States.[36] It was the only company which manufactured a full line of shoe machinery. The degree of monopoly is shown by the numbers of various types of machines which the United company and its competitors had out March 1, 1911. (See table, page 84.)

The United company in twelve years, as shown by dividends and surplus, earned in excess of $50,000,000 upon a total investment, in cash or its equivalent, of about $20,000,000 —another indication of the monopoly which it enjoyed.[37]

The judicial history of the United Shoe Machinery Company has been extensive. The Supreme Court, in 1913, upheld the legality of this company as a consolidation of several shoe

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[35] These clauses are described in the next chapter.
[36] United States v. United Shoe Machinery Co., 264 Fed. Rep. 138, 163.
[37] Brief for the United States, p. 6.

Machines	By United company	By all others
Clicking machine	3,655	..
Pulling-over machine	1,632	..
Lasting machine	7,496	7
Standard screw machine	409	..
Pegging machine	146	..
Tacking machine	3,488	6
Welt sewing machine	2,527	142
Outsole stitching machine	2,676	758
Loose-nailing machine	1,835	24
Heeling machine	2,019	17
Slugging machine	1,876	23
McKay sewing machine	898	8[38]

machinery concerns.[39] The court stated the point in controversy. "The only question before us is whether that combination taken by itself was within the penalties of the Sherman Act. The validity of the leases or of a combination contemplating them cannot be passed upon in this case." [40]

That the combination led to greater efficiency, that manufacturers made non-competing groups of machines, and that the machines were patented, constituted apparently the factors which determined the opinion of the court.

"On the face of it the combination was simply an effort after greater efficiency. The business of the several groups that combined, as it existed before the combination, is assumed to have been legal. The machines are patented, making them a monopoly in any case, . . . and it may be assumed that the success of the several groups was due to their patents having been the best. As, by the interpretation of the indictment below (195 Fed. Rep. 591) and by the admission in argument before us, they did not compete with one another, it is hard to see why the collective business should be any worse than its component parts. . . . We can see no greater objection to one corporation manufacturing seventy per cent of three non-competing groups of patented machines collectively used for making a single product than to three corporations making the same proportion of one group each."[41]

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[38] Brief for the United States, p. 150.

[39] U. S. v. Winslow, 227 U. S. 202; also, see decision of lower court, 195 Fed. Rep. 578.

[40] 227 U. S. 202, 217.

The Supreme Court in May, 1918 announced again, by a vote of four to three, the legality of the United company as a consolidation of manufacturers of shoe machinery.[42] The Supreme Court upheld the decision of the District Court, 222 Fed. Rep. 349, from which the government had appealed. The line of argument was like that in United States v. Winslow.[43] It stated that the constituent companies were not competitive and that their machines were protected by patents. It held that subsequent acquisitions, 56 all told, gave a false impression by their number. "They added nothing of obnoxious power to the United company nor in any practical or large sense removed competition."[44] The court pointed out that some of the acquisitions arose from a desire to end patent litigation.[45] Justice Clarke gave a strong dissenting opinion, with which Justices Day and Pitney concurred. He declared that competitive concerns had been acquired by the United company and that its patents could not excuse the consequent monopoly.

AMERICAN CAN COMPANY

In the formation of the American Can Company, patents played a secondary rôle though not an unimportant one. Incorporated March 19, 1901, in New Jersey, it issued $82,466,600 of capital stock, half preferred and half common. Of this amount $78,000,000, equally prorated between preferred and common stock, was used in obtaining 73 competing concerns engaged in the can business, including their real property, plants, buildings, fixtures, machinery, patents, trademarks and good-will, and also the machinery, patents, goodwill, and other property of 19 other concerns. Later, during the same year, this company secured 21 additional companies, together with the patents of other concerns.[46] These plants made about 90 per cent of the cans then manufactured for sale in the United States. During the subsequent years the company pursued the policy of acquiring other competing concerns engaged in the can business; but, even so, many competitors sprang up through the inducement of high profits, until in 1913 it controlled only about 50 per cent of all tin cans manufactured for sale. This statement does not take into account tin cans manufactured by concerns for their own use.[47]

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[41] *Ibid.*, p. 217.

[42] 247 U. S. 32.

[43] 227 U. S. 202, Feb., 1913.

[44] 247 U. S. 32, 54.

[45] *Ibid.*, pp. 49, 52.

The great majority of the concerns whose plants and businesses were acquired by the American Can Company in 1901 were manufacturing cans for sale. Most of the others of any importance were engaged in the manufacture of can-making machinery or owned valuable patents for such machinery.[48]

One of the can manufacturers whose plant was acquired by the American Can Company testified that those interested in the can-making business feared that they might be excluded from getting tin-plate, or can-making machinery. In 1900 this manufacturer purchased can-making machinery, so that, in case the American company secured control of it, he would be well equipped. He did not increase his output of cans, but merely obtained a good supply of machinery in anticipation of any possible contingency.[49]

The American company, soon after its formation, by purchase or contract, acquired control of the business or output of all concerns engaged in the manufacture of the automatic body maker—the most important machine in the manufacture of packers cans. It acquired also most of the leading concerns engaged in making automatic side-seamers, headers, floaters, and end-seamers, all of which were important machines in the manufacture of packers cans.

The company purchased the assets, including patents, of Crosby and Company, Norton Brothers, Robbins Press Works, Sprague Canning Machinery Company, and Sleeper Machine

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[46] Petitioner's Summary of Evidence in U. S. v. American Can Co., No. 40, pp. 73-76, D. C., D. Md.

[47] *Ibid.*, pp. 149-150.

[48] *Ibid.*, p. 78.

[49] *Ibid.*, p. 108.

Company, all engaged in manufacturing automatic can-making machinery. By contract it acquired control first of the output of the automatic can-making machinery of E. W. Bliss Company, and second of the can machinery of the Adriance Machine Company and the Ferracute Machine Company. The nature of these contracts is indicated by the list of cancelled orders by E. W. Bliss Company, amounting to $91,842 and covering machinery which it contracted to deliver but could not by reason of its agreement with the American Can Company. According to the petitioner's summary of evidence, it acquired practically all of the commercially valuable patents for the manufacture of automatic can machinery.

The control of the automatic can-making machinery by this combination, secured in the fashion just described, did not continue unchallenged, for within a few years other concerns equipped themselves to make such machinery. New companies, together with new machinery, came into being to make the so-called sanitary cans. The combination resorted again to its former policy of obtaining the businesses of such competitors. It acquired not only the Sanitary Can Company in 1908, the largest concern engaged in making and marketing such cans, but also the control of the Max Ams Machine Company, the chief manufacturer of the machinery for making such cans, by means of a restrictive agreement, December 15, 1909. Further, the machinery output thus controlled was covered by a number of patents. Other patents in aid of said control were also acquired, some as late as 1912.[50]

After the purchase of competing plants, the American Can Company dismantled many of them—105 prior to March 31, 1903.[51] Some of the machinery of the acquired plants was worthless. Moreover, the sledge hammer was freely used in breaking it up so that it could not be used again as can machinery, a fact which points to the intent of this combination to prevent any would-be competitors from obtaining can-making machinery.

Another scheme of the American Can Company consisted

[50] *Ibid.*, pp. 117-120.

[51] *Ibid.*, p. 130.

of getting control of the inventive genius that might be exercised, if unfettered, in further development of the can industry. Most of the can manufacturers who sold out to the American Can Company agreed not to engage in the can business for a period of fifteen years within three thousand miles of Chicago, Illinois, except in connection with the American Can Company or its assigns.[52] Moreover, it contracted for the inventive genius of individuals. For example, the Adriance Machine Company contract included $25,000 per annum for Adriance's inventive genius.[53]

This company, in other words, sought to monopolize the tin can industry by acquiring control of the manufacture of cans and can-making machinery. In this way, existing competition would be largely removed and the possibility of future competition lessened. Can factories not obtained would soon be reduced to impotence after the wearing out of their existing machinery, owing to the apparent impossibility of obtaining any new can-making machinery to replace the old. The control of can-making machinery covered by patents was, therefore, its chief source of strength. Such patents were obtained by purchase and by exclusive licenses. A monopoly of such patents was further assured by contracting for the future inventive genius of former competitors, also by getting concerns whose property it purchased to agree not to engage in this business again within a certain number of years. Patents on can-making machinery were further exploited in the case of the salmon industry by stipulating that its can-making machinery might be used only in making cans from parts furnished by the American Can Company.[54] The formation of this monopoly resulted in considerable advances in the prices of cans.

The United States, as one would expect, brought suit against this company, charging it with a violation of the anti-trust laws. The District Court, in 1916, handed down the decision: "One who sells only one-half of the cans that are sold does not, of course, possess a monopoly in the same sense as he would if he sold all or nearly all of them. Yet he may have more power over the industry than it is well for any one concern to possess. No one can say with any certainty that anybody would be better off if defendant had never, in any way, restrained or controlled absolutely free competition in cans. All that can be argued is that, in view of the declared policy of Congress, the legal presumption must be that that which was done was against the public weal." [55]

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[52] Petitioner's Summary of Evidence in U. S. v. American Can Co., No. 40, p. 78.

[53] *Ibid.*, p. 119.

[54] See Chapter IV.

The court, holding that the dissolution of the trust would serve no public interest, allowed the suit to stand open until future events and actions should warrant a definite decision.[56] The case was appealed to the United States Supreme Court.

A. B. Dick Company

No monopoly based on patents has received more publicity than the A. B. Dick Company, largely on account of Henry v. A. B. Dick Company, known as the Dick or mimeograph case, in which a decision was handed down by the Supreme Court on March 11, 1912.[57] It recognized the legal right of this company to dictate the ink and other supplementary supplies used on its patented stencil duplicating machine.[58] The Supreme Court reversed its position in 1917 in the projecting machine case.[59] Prior to this, however, the Dick company enjoyed, by legal right, a monopoly in the manufacture and sale of stencil duplicating machines and supplies used in connection with them. In 1915 this company controlled, in money value of sales, approximately 85.1 per cent of the commerce in the United States in stencil duplicating machines, approximately 88.2 per cent of such commerce in stencil duplicating paper, and approximately 79.9 per cent of such commerce in stencil duplicating ink.[60] It represented an integration of this particular industry, including both patented and unpatented goods, both machines and supplies. It should be pointed out that there are duplicating machines other than stencil, such as movable type and composition.

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[55] U. S. v. American Can Company, 230 Fed. Rep. 859, 901, D. C., 1916.

[56] *Ibid.*, pp. 901-904.

[57] 224 U. S. 1; appeal from decision of Circuit Court, 149 Fed. Rep. 424. Until 1916 the A. B. Dick Company of New Jersey was the holding company of the A. B. Dick Company of Illinois and the Neostyle Company of New Jersey. In 1916 the first and third companies were dissolved, and their assets taken over by the A. B. Dick Company of Illinois. See Report of the Federal Trade Commission, 1917, Exhibit 5.

[58] See the next chapter for a detailed discussion of this point.

[59] 243 U. S. 502. Three of the judges gave a minority decision, following the line of argument employed in Henry v. Dick, 224 U. S. 1.

The patents of the Dick company, 128 in all, were originally issued to about thirty different inventors; 67 of them to A. B. Dick, and the remainder to other individuals. The fact that nearly one-half of these 128 patents were issued to other parties, later coming into the possession of the A. B. Dick Company, points to a policy of acquiring any and all patents pertaining to duplicating machines and supplies so as to secure a monopoly of them. The extent of the suppression of these patents is brought out in Chapter VI.

Eastman Kodak Company

In 1878 George Eastman entered the field of photography, organizing a small company for the manufacture and sale of wet collodion plates for the making of negatives.[61] Later he abandoned this process and organized the Eastman Dry Plate and Film Company, predecessor of the Eastman Kodak Company. The period dating from the introduction of the gelatine dry plates in 1878 to the advent of the "Bullseye" camera in 1894 constitutes the formative period in amateur photography —a period characterized in all industries "by activities of inventors and pioneers, each pushing forward with his particular device or improvement until a standard is reached which is sufficiently fool-proof and sufficiently inexpensive to find steady acceptance." [62]

The Eastman Kodak Company of New Jersey, organized in 1901 with a capital of $35,000,000, is owner of the capital stock of the Eastman Kodak Company of New York, a corporation engaged in the manufacture of photographic materials and supplies, and of two other corporations, one English and one Canadian, similarly engaged.[63] Within about 15 years the Eastman Kodak Company of New York acquired some twenty competing concerns in the United States; the plants were dismantled and their business discontinued or transferred to the Eastman plants in Rochester, New York. The officers and partners of these corporations and partnerships agreed not to engage in competing business for periods of from 5 to 20 years. Also the Eastman company, by contract with the makers, "obtained entire control in the United States of the imported raw paper which was recognized as the only standard paper for the manufacture of photographic printing-out paper, and by refusing to sell to other manufacturers compelled several competing companies to sell or go out of business. It acquired stock houses in the larger cities, which handled chiefly its own products, and by contracts with other dealers to whom it sold, fixed resale prices and required them to sell its goods exclusively."[64]

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[60] Annual Report of the Federal Trade Commission, 1917, Exhibit 5, p. 61. The "mimeograph" is the principal type of duplicating machine.

[61] U. S. v. Eastman Kodak Company, 226 Fed. Rep. 62, 66, Aug., 1915.

[62] U. S. v. Eastman Kodak Co., D. C., W. D. of N. Y., Brief for the U. S., Part I, p. 159.

It is necessary to study in considerable detail the various steps which led to the acquisition of various companies.

The Bullseye camera, introduced in 1894 by Blair and Turner of the Boston Camera Company, became the most prominent product in the camera market. It constituted a turning point in the development of film photography on account of its simplicity, efficiency, and cheapness.[65]

"The Bullseye was the camera of extreme simplicity. It carried the films in the waste space in front of the focal plane, thus shortening the camera fully one-third. It had no cumbersome indicating or straining device because the film curved naturally away from the lens and followed the curvature of the lens. By using black paper on the outside of the film it was possible to mark the exposure number on the paper itself, which could be viewed from a peephole in the rear of the camera, which peephole was covered with red celluloid. The lens could be a cheap one because it did not have to correct any aberrations due to the curvature of the film. It had the so-called two-way shutter, that is to say, a shutter that was always set and worked by a lever which made an exposure at each movement. Hence, there were no films lost or pictures untaken by reason of forgetting to pull any string. It had the daylight loading cartridge."[66]

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[63] U. S. v. Eastman Kodak Co., 226 Fed. Rep. 62, 63.

[64] *Ibid.*, pp. 62-63.

[65] Brief for the U. S., Part I, p. 13.

The superiority of the Bullseye affected the sales of the Eastman Kodak Company in a pronounced fashion. From 1892 to 1894 the sales of the kodak, introduced by the Eastman company in 1888, steadily decreased. In 1892 the sales of kodaks and apparatus amounted to $207,212.51, and in 1894 to $74,594.33, while the sale of films amounted to $102,404.29 in 1892 and to $81,319.48 in 1894. The government attributed this decline in business to the competition created by the appearance in the market of the Bullseye camera.

With this situation prevailing, the Eastman company secured in 1894 a preliminary injunction against Blair and Turner, alleging that the "Bullseye" infringed the Eastman-Walker patents on roll holders. The injunction, apparently without foundation, was to restrain the Boston company from manufacturing and selling this camera.[67] The restraining order was vacated and the suit was not further pressed.

According to the government's brief in its suit against the Eastman company, this litigation, vexatious and malicious, was for the purpose of forcing the Boston company to sell out to the Eastman company; although the court held that the evidence was insufficient to support this view.[68] To accomplish the same object but in a different way the Eastman company proceeded to manufacture and sell a camera called the "Bullet," very similar to the "Bullseye," and put on the market its first pocket kodak—a miniature Bullseye camera. The Eastman company marketed these two cameras in a new and aggressive fashion which meant, according to the government's brief, initial infringement in great quantities. As Eastman himself stated, it was sent to the dealers on approval, and the country was deliberately flooded with them. To make the scheme effective before any injunction or other legal restraint could interfere, the cameras were secretly made up in large quantities before being announced.[69] Turner, perplexed and embarrassed it would seem, granted in June, 1895, a license to the Eastman company to make cameras under his patent for a film roll, the invention which revolutionized film photography, and released it from all damages based on alleged infringements of this patent.[70] In August of the same year, he sold out completely the patent and business of the Boston company to the Eastman concern; and in addition agreed for a period of five years not to engage in the manufacture or sale of cameras or supplementary supplies in the United States.[71]

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[66] Brief for the U. S., Part I, p. 13.

[67] *Ibid.*, p. 15.

[68] 226 Fed. Rep. 62, 69.

In August, 1895, the Eastman company held a special meeting to consider the advisability of purchasing the business and patents of the Boston Camera Company with a view of reducing competition and securing control of the S. N. Turner spool patent. Mr. Eastman reported in 1895: "We have secured an additional hold on the business by the purchase of what is known as the Turner cartridge patent . . . such as is used in the pocket kodak . . . and will probably control the future of film photography as it is the only practical daylight cartridge." [72] In speaking of the acquisition of Turner's business, Mr. Eastman admitted that it was necessary in obtaining the entire right to his patent.[73]

The Eastman company, in 1898, also acquired the American Camera Manufacturing Company, capitalized at $25,000 and organized a few years previously by Blair of the Turner and Blair already noted. It began to manufacture and sell the Buckeye camera, very similar to the Bullseye and made under the Houston patent, which covered the device of carrying the spool film in front of the focal plane.

According to the government's brief, the Eastman company had made infringing devices, though duly notified of their infringement; moreover, it had attempted to enjoin Blair from making the Buckeye camera, but had failed.[74] This situation led to the sale of the American company.[75] Blair now agreed to remain in the employ of the American company and not to engage on his own account in the manufacture of cameras or photographic supplies in the United States for a period of five years.[76] Blair also agreed to assist the Eastman company to acquire the Houston patents; as a result of his services, for which he received $15,000, these patents were assigned to the Eastman company and it was released from liability for past infringement. Within a short time the Eastman company dismantled the plant of the American company and discontinued the sale of the Bullseye camera. "Mr. Eastman stated with candor that the purchase of the plant was merely incidental to the primary object of acquiring the Houston patents, which were regarded as of great value." [77] Moreover, Mr. Eastman testified in court that "they wished to buy the Houston patents and found that Blair had certain contracts with Houston which prevented Houston from dealing with them, and therefore they had to deal with Blair." [78]

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[69] Brief for the U. S., Part I, p. 16.
[70] U. S. v. Eastman Kodak Co., Vol. 5, Govt. Ex. 95, p. 2165.
[71] Brief for the U. S., Part I, p. 17.
[72] *Ibid.*, p. 19.
[73] *Ibid.*, p. 19.

In 1898 the Eastman company acquired the Blair Camera Company, which Blair, although no longer connected with it, had organized a number of years previously. From 1878 to 1898 this company made dry plates, photographic paper, films, amateur plate, and film cameras. At the time of its sale it owned the Crane patents for improved roll holders employing black paper at each end of a perforated film. Mr. Eastman gave as a reason for acquiring the Blair company that he wished to obtain the Crane patents in order to develop a better method for exposing film, and declared that prior to such purchase the Blair Camera Company was infringing the Houston patents.[79] The acquisition of this third concern gave the Eastman company a dominating position in the film camera business.[80]

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[74] Other instances of intentional infringement by this company are given in Chapter V.

[75] U. S. v. Eastman Kodak Co., Vol. 5, Govt. Ex. 1.

[76] Brief for the U. S., Part I, p. 26.

[77] U. S. v. Eastman Kodak Co., 226 Fed. Rep. 62, 70.

[78] Brief for the U. S., Part 1, p. 28.

[79] U. S. v. Eastman Kodak Company, 226 Fed. Rep. 62, 70.

By means of contracts and purchases the Eastman company also extended its control over photographic supplies, as suggested in a summary statement by the court. "In the years 1895, 1898, and 1899, the Eastman Kodak Company acquired the businesses of the Boston Camera Manufacturing Company, the American Camera Manufacturing Company, and the Blair Camera Company, including their plants, properties, secret formulae, and trade-marks, entered into contracts with foreign raw paper concerns with regard to the importation of raw paper into the United States and acquired plate camera and sensitized photographic paper concerns, the card stock business of Taprell, Loomis and Company, and 15 stock houses, and also imposed restrictions on dealers to the retail trade with regard to price, etc."

The government, in its suit against the Eastman Kodak Company for violation of the Sherman law, secured a favorable decision from the District Court. The tribunal held that there was nothing illegal in the way in which the Eastman company acquired its patents on cameras and film.[81] It rested its argument upon other factors, as will be seen from the following:

"The record abounds in compiled figures showing that large amounts of money were paid to acquire the competing concerns to which reference has herein been made, and to show their standing in the trade to prove that such acquisitions were not merely amalgamations of small concerns; also to show the amount of business transacted in different materials by the Eastman Kodak Company, its great gains and profits, which for the year 1912 amounted to $15,633,551.33, or about 171 per cent, on total sales amounting to $24,763,407.65, and showing the large disproportion between the cost of manufacture and the price paid by the consumer. Whatever reduction the Eastman Kodak Company may have made as to price, on portions of the photographic paper or other materials sold by them, does not compensate for the suppression of competition in the industry as a whole, and it is no justification of an illegal monopoly to assert that it has reduced the price of an article produced by it, as this may have been done simply to injure a rival . . .

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[80] A recent manifestation of this company's policy to control all patents relating to cameras consists of its purchase of Gaisman's patent covering the device for writing anything on a camera film while it still remains in the camera, for which $300,000 was paid. *Literary Digest,* Aug. 8, 1914.

[81] 226 Fed. Rep. 62, 67-70.

"But all these matters require no further special attention, save in so far as they bear upon the monopolization of the interstate trade in cameras, film, plates, and photographic paper; and as to these articles it is undisputed that the Eastman Kodak Company controlled approximately between 75 per cent and 80 per cent of the entire trade at the time of filing the bill, and had accordingly attained a monopoly thereof. The burden rested upon the defendants to prove that this was accomplished by lawful methods, that is, that it resulted from normal processes of growth, from the mere acquisition of property, or from the superior merit of the products, assuming this to have been an important factor; and after careful consideration of the various defenses interposed I have concluded that such burden has not been borne, but that, on the contrary, the government has shown affirmatively that interstate trade and commerce have been unjustly and abnormally restrained by the defendants by the formation of a monopoly induced by wrongful contracts with regard to raw paper stock, preventing the trade from obtaining such stock, by the acquisition of competing plants, businesses, and stock houses, accompanied by covenants restraining the vendors from re-entering the business, and by the imposition on dealers of arbitrary and oppressive terms of sale inconsistent with fair dealing, and suppressing competition. Such acts, when taken together, are most significant and seem to me to indisputably disclose an intention to violate section 2 of the Sherman Act." [82]

This decision was handed down August, 1915. A final decree by the same court in January, 1916, demanded the discontinuance of the monopoly and the establishment of competitive conditions, a plan for which the defendants were requested to submit to the court within a given period.[83] The Eastman company appealed the case to the United States Supreme Court, where on January 31, 1921, it was dismissed on motion of counsel for appellants.[84] The Federal judge in Buffalo, where the case was first heard, on February 1, 1921 directed the dissolution of the company. The decree required the Eastman company within two years to sell its Premo and Century plants at Rochester, New York, its Artura brand of photographic paper, and its Seed, Stanley, and Standard brands of photographic dry plates. "The purchaser," according to the decree, "must be a responsible person, firm, or corporation approved by the United States Attorney-General and intending to manufacture the line purchased. If any of these properties are not disposed of within two years at private sale the company is required to dispose of them at public sale to the highest bidder, the minimum price, however, to be agreed upon by the company and the Attorney-General, and in case of disagreement fixed by the court. The properties required to be sold are the principal ones acquired by the company from other manufacturers of photographic goods in the United States."[85]

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[82] 226 Fed. Rep., pp. 62, 79-80.

It is interesting to note, in connection with this decree, that the Federal Trade Commission issued a complaint, April 23, 1923, against the Eastman Kodak Company and minor film companies. They are charged with a conspiracy as a result of which the Eastman company has acquired a virtual monopoly in the manufacture and sale of cinematograph film in the United States.

STANDARD OIL COMPANY

According to the report of the United States Industrial Commission of 1900, patents played a part in bringing this monopoly into being and in maintaining it. The solicitor of the Standard Oil Company in answering the inquiry, "What patents, machines, or processes of any kind formerly used exclusively by one plant are now used by all adapted to use them?" enumerated 135 patents. Moreover, the question, "What by-products, if any, are available to your organization which could not profitably be made by separate plants?" produced the reply, "All products are made by separate plants, but most of them were at one time protected by patents the use of which became available to all plants." [86]

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[83] 230 Fed. Rep. 522, 524-525.

[84] 255 U. S. 578.

[85] U. S. v. Eastman Kodak Co., etc., Final Decree, Decree of Dissolution and Injunction, etc., In the D. C. of the U. S., W. D. of N. Y., In Equity No. A-51; Poor's and Moody's Manual, consolidated, 1921, Industrial Section, Vol. I, p. 1398.

INTERNATIONAL HARVESTER COMPANY

McCormick, the founder of the harvester industry, had many competitors when the industry was in its infancy. But he purchased patents on improvements from others; and his employees—professional inventors and manual laborers—conceived many inventions, the patents on which were assigned to McCormick's concern. One might think that patents were largely responsible for the creation, in 1902, of the International Harvester Company, an amalgamation of the five leading manufacturers of harvesting machines. It acquired control of complicated machinery, all the result of numerous inventions. However, the basic patents on nearly all the chief lines of harvesting machines [87] had expired before the organization of the International company; the corn harvester, appearing in the nineties, was the only exception. Minor patents covering improvements on all these machines had not expired; but they furnished no important incentive in the formation of the company.[88] A lawyer stated, in 1914, before the Oldfield Committee, "The 17,000 patents which the International Harvester Company holds sound more formidable than they really are. Very few of them will stand the test of litigation. They are mostly a lot of weak patents taken out simply to preserve the equilibrium of the concern and to prevent its inventions from being wrongfully appropriated by people who never made them."[89] Patents, therefore, have not constituted an important factor in the recent history of the harvester industry.

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[86] Report of United States Industrial Commission, Vol. I, 1900, p. 798.

[87] Binders, reapers, mowers, rakes.

[88] *The International Harvester Co.*, Bureau of Corporations, p. 45.

General and Westinghouse Electric Companies

The General Electric Company represents a consolidation of a large number of concerns that were originally small; for instance, the Edison Electric Company, the Thompson-Houston Company, the Brush Electric Company, the Sprague Electric Company, the Stanley Electric Company, the Northern Electric Company, and the Fort Wayne Electric Works. The General Electric Company, in acquiring these concerns, secured, of course, all their patents. In addition, it has maintained a corps of inventors for the purpose of obtaining other patents.[90] Furthermore, it appears that this company has bought patents to prevent competition with its own product.

From 1897 to 1911 the General Electric Company and the Westinghouse Electric Company maintained an agreement called the "board of patent control." They both agreed that neither one of them would acquire any license under any patent except by giving at the same time an option for the term of six months, by which the other one should get a license on the same terms. One inventor stated, in 1912, "I myself have dealt with them on four or five different unimportant licenses in which I was obliged to give this right to the Westinghouse Company to get the same kind of license that I gave to the General Electric Company."[91] Under this agreement these two companies had no interest in the patents of outside inventors from the standpoint of acquiring them to compete more effectively with each other. The same inventor described his own experience with these companies: "Now, 15 years ago if I had an invention as I did have, and had no difficulty in getting 24 different license fees in the course of two or three years, on certain patents, I honestly believe that if I had that very same patent to deal with over again, under exactly the same state of the art as was then, that I would have been in the same position then as I am to-day, namely, that I would be merely negotiating and negotiating, and never would I meet with any serious effort on their part to acquire a right; they would infringe; they never hesitate to infringe." [92]

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[89] Oldfield Hearings of 1914, Part 6, p. 112.
[90] Oldfield Hearings of 1912, No. 15, p. 12.
[91] *Ibid.,* No. 3, p. 23.

OTHER AMERICAN COMPANIES

In 1907 one of the officials of the Draper Company stated that recent investigations indicated that his company acquired more patents every year than any other concern, outside the electrical field. This would seem to show, he said, that cotton machinery inventions have been concentrated under one management to a greater extent than in any line outside electrical developments.[93] The American Car and Foundry Company, at the time of its organization, stated that the benefits of the consolidation would be a common enjoyment of the patents and the processes of each of the constituent companies. The Bell Telephone Company built itself up on patents. Other companies which occupy predominant positions in their respective industries owe their power to the control of important patents. These include Westinghouse Air Brake Company, National Cash Register Company, Pullman Car Company, and Diamond Match Company.

THE KRUPPS

The War Department recently made an investigation of patents obtained by German citizens and assigned to Frederick Krupp of Germany. The organization which he represents pursued the policy of acquiring United States, German, and other patents relating to war materials until it attained a dominant position in the manufacture and sale of them.

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[92] Oldfield Hearings of 1912, No. 4, p. 12.

[93] G. O. Draper, "Patents," *Eleventh Annual Convention of American Cotton Manufacturers' Association,* Philadelphia, 1907, p. 185.

The War Department, May 20, 1921, authorized the publication of the following: "The Secretary of War has caused an investigation to be made of the patents and applications for patents recently announced as having been obtained by German citizens and assigned to Frederick Krupp. The investigation disclosed a rather striking circumstance in view of the conditions which Germany is supposed to observe as to disarmament and manufacture of war materials under her treaty obligations.

"Of the 228 patents and applications for patents assigned to Krupps, 26 were found to relate to artillery fire control devices, 18 to electric control apparatus, 9 to fuses and projectiles, 6 to gas engines and appurtenances, 17 to guns and their appurtenances, 3 to processes for the production of metals, 10 to naval fire control devices, 3 to projectiles and machines for handling same, 14 to railroad artillery, and the balance to varied uses, most of which might well relate to military use.

"Incident to making this investigation, it was noted that a large number of patents and applications for patents had been assigned to numerous other German companies, and a casual examination indicates that a considerable number relate to aeroplanes and their accessories, chemicals, dyes, radio apparatus, and naval equipment."

Criticism

Evils of Monopoly. This chapter reveals the extent to which patents have assisted in the formation and continuation of some of the most objectionable monopolies. The author takes the position that competition in the industrial field promotes economic progress and protects the people against extortion. It is not the purpose of this study to discuss the evils of monopoly—high prices, the delimitation of economic opportunity, etc. They represent an economic cost, and a tremendous one, and therefore a liability in estimating the net worth of the patent system.

Commercialization of Learning. The great corporations, in employing scientists and inventors of the highest order and in furnishing them excellent laboratory facilities, have become rivals of colleges and universities. A well-known inventor has stated that there are "industrial research laboratories which have cost millions for buildings and equipment alone, offering means for experimentation and research, which have never been possessed by any university, or even governments. All this has been provided by private corporations." [94] The possibility of securing patents and utilizing them in making money, rather than the pursuit of pure science as such, defines the boundaries of the activities of their inventors and constitutes the common denominator to which the value of their efforts is reduced.

Carl Barus, Graduate Dean of Brown University, has recently said,

"In the end, I fear, the trusts, as we fondly call them, will have absorbed and assimilated *l'elan vital*, the soul of the university. It is they who will point out to our bewildered gaze the sweep of new horizons and the flotsam from undiscovered shores. Our faculties will have to teach what they have been taught by the great business corporations. These will hereafter break new pathways into the unknown, and it will be for us to tell the uninformed the Ultima Thule of their progress. The university will be the humble expository mechanism of the intellectual accomplishments of commercial enterprise. In brief, there will be a complete inversion of the method by which the world's knowledge has deepened in the past.

"If one looks, for instance, at the highly ingenious contrivances by which the marvels of the Hertzian wave have recently been brought to the appreciation of the people, one is struck by the appearance on every clamp, every ferule, every coil, every tube, almost on every plate and screw, of the mysterious symbol, PAT. This PAT. is a cipher more potent than any formula of Cagliostro. It is behind an array of PAT. that the wisdom of the future will be entrenched, and above which so much of it as may be vouchsafed us will be broadcast. Our function will resemble the town crier's, to herald the information somebody else has wrested from the infinite. We shall still be interested and keenly watchful, no doubt, like the little cherubs with rapt gaze at the feet of the Sistine Madonna; but the great inspiration will float majestically above us."[95]

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[94] Nolan Hearings of 1919, p. 89.

Retardation of Invention. The interest of a patent trust in new inventions is confined primarily to the desire to prolong its monopolistic power. The conception of inventions and the extent of their embodiment in products do not proceed from the existence of competition, but from the fear of rivals in the future and the desire to prevent the scrapping of old equipment. An industrial monopoly built upon basic patents is continued by means of patented improvements. The conception and adoption of a rival invention of a basic nature would mean financial loss. The automatic telephone and wireless telegraphy, for example, were not invented under the auspices of the American Telephone and Telegraph Company; it has sought, however, to control the patents covering them in order to protect its monopolistic position and prevent the scrapping of present equipment. Again, the greatest impetus to the improvement of shoe machinery subsequent to the creation of the United Shoe Machinery Company came from without, not within, this company. Thomas G. Plant did not have millions of dollars invested in leased machines, as the United company had, to deter him in the improvement of shoe machinery. The principal or pioneer inventions in the tin can industry were made by concerns outside the pale of the American Can Company. The greatest improvements in the can-making art occurred prior to the formation of this company. As one inventor has well said, "My own thought and observation has been that the greatest difficulty with regard to trying to promote progress in the line of invention is the fact that there is no limit to the combination of patents."[96]

[95] Bulletin of Brown University, Report of President to Corporation, Oct., 1922, pp. 33-34.
[96] Oldfield Hearings of 1912, No. 3, p. 23.

Waste of Economic Resources. The efforts expended in creating patent trusts, on the one hand, and in exposing and destroying them, on the other, constitute a drain on our economic resources. All of the industrial monopolies described in this chapter have been the subjects of investigation and attack on the ground of violation of the Sherman and Clayton laws. Many employees of the Federal Trade Commission and other governmental departments have busied themselves in ascertaining the facts concerning these corporations. Able lawyers have expended their talents in prosecuting and defending them, and judges have devoted an appreciable part of their time to hearing the cases. Stenographers, clerks, and others have contributed to the total of labor resources directed along acquisitive and corrective lines. One group of individuals has tried, in the name of public welfare, to nullify what another group has attempted to attain in the spirit of acquisitiveness. Their activities constitute an economic cost which must be borne by society and which detracts from the net utility of our patent system.

CHAPTER IV

UNFAIR COMPETITION

DEFINITION

THUS far no standard definition of unfair competition has been formulated. Early judicial decisions seemed to regard "passing off" the goods of one business concern for those of another—in other words, selling them through fraud and misrepresentation—as the essence of unfair competition; but this definition is inadequate in that it does not include other practices, such as the maintenance of re-sale prices, which are considered unfair and undesirable. Moreover, "business ethics" cannot serve as a criterion in classifying some methods of competition as fair, and others as unfair, for the connotation of "unethical" varies from place to place and time to time. A definition of unfair competition should be stated in terms of economic philosophy, since competition itself is an economic institution. Hence, the general criterion should be economic welfare. One may posit the thesis that the economic interests of society rest upon the maximum satisfaction of human wants at the least cost.[1] To secure this result efficient units of organization must be preserved and inefficient units destroyed.[2] Methods of competition which prevent the realization of these two objects are economically unfair.

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[1] Robert Liefmann, "Monopoly or Competition as the Basis of a Government Trust Policy," *Quarterly Journal of Economics*, XXIX (Feb., 1915), 311.

[2] Stevens, *Unfair Competition*, p. 6. Also consult Federal Trade Commission, *Unfair Competition at the Common Law;* and Montague, *Business Competition and the Law.*

UNCERTAINTY OF LEGAL STATUS

A patent furnishes an effective weapon for unfair competition. It is difficult in many instances to ascertain the legal rights of a patentee. The disagreement of the lower courts and the vacillation of the Supreme Court as to what constitutes the privileges of the patentee lend support to this statement. Witness, for example, the judicial history of the attempt of the patentee to dictate the auxiliary supplies for his patented product and to prescribe its re-sale prices. Most people realize that patents confer exceptional rights, and not knowing their exact boundaries they are easily induced to observe restrictions and heed threats that really have no legal foundation. The three preceding chapters indicate the use of patents as a weapon for unfair competition. The description of license agreements, like those of the United Shoe Machinery Company and the Motion Picture Patents Company, revealed their exclusive and conditional character. The right of the monopoly to cancel the agreement without notice furnished the club which obliged its licensees to submit to ruthless treatment. Patent monopolies have employed nearly every means of competing unfairly. They have tended to destroy competitors and discourage would-be rivals regardless of their efficiency. The various kinds of unfair competition committed in the name of patents will be enumerated, described, and discussed in the following order: monopolistic agreement concerning purchases and sales, dictation of supplementary supplies, control of complementary goods, maintenance of re-sale prices, litigation, interference proceedings, forced validity of patents, forced royalties, false marking, and piracy.

MONOPOLISTIC AGREEMENT CONCERNING PURCHASES AND SALES

Patents Company—Eastman Company Contract. Previous chapters presented the various steps in the formation of two of the most powerful monopolies based on patents—the Motion Picture Patents Company and the Eastman Kodak Company. One factor which facilitated their success as monopolies was a contract between them by which the Patents company agreed to buy its sensitized films exclusively from the Eastman company and the Eastman company agreed to sell its sensitized films exclusively to the Patents company. The minutes of the Eastman company dated a short time before the consummation of this contract contained this resolution: "Resolved, that this company enter into an agreement in writing with the Motion Picture Patents Company for the term beginning June 20, 1909, and ending July 1, 1912, or thereabout, providing for and granting the exclusive right to this company to manufacture non-inflammable sensitized motion picture film and sell the same to licensees of said Motion Picture Patents Company."[3] Further, the agreements between the Patents company and the licensed manufacturers of motion pictures contained provisions which supplement the preceding minutes: the licensed manufacturers agreed to use exclusively sensitized film made by a manufacturer authorized by the Patents company; and the Patents company agreed to "obligate such manufacturer" not to sell sensitized film to any one but the licensed manufacturers of motion pictures.[4]

The Patents company granted to the Eastman company the exclusive right to manufacture the "licensed film," and with a few minor exceptions, the Eastman company agreed not to sell motion picture film to any but licensees of the Patents company. This exclusive contract gave a *buying* monopoly to the Patents company and a *selling* monopoly to the Eastman company. The Patents company depended partly upon this contract to control the motion picture business, for the Eastman company was the only manufacturer in the United States at that time making suitable film for the use of motion pictures. One man testified in the court proceedings that representatives of motion picture concerns told him that they had made arrangements with the Eastman company to get the exclusive use of the Eastman stock, and that a competitor would have but little chance to enter the field.[5]

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[3] U. S. v. Eastman Kodak Company, Vol. 5, Govt. Exhibit 216, pp. 2638-2639.

[4] U. S. v. Motion Picture Patents Company, Original Petition, p. 17.

The contract between the Patents and Eastman companies was considerably modified February 15, 1911, when Jules E. Brulatour, the assignee of the Lumière Company, a French manufacturer of film, entered into a contract with the Eastman Kodak Company by which the latter agreed to supply sensitized film to the New York Motion Picture Company, Powers Company, Carlton Motion Picture Company, Thanhauser Company, American Film Company, Gaumont Company, Centour Film Company, Independent Moving Picture Company of America, Champion Film Company, Atlas Film Company, Yankee Film Company, and Rex Motion Picture Manufacturing Company.[6] Brulatour had the exclusive sale of sensitized film to these companies, which the Lumière Company assigned to him. This company had previously secured exclusive contracts with the various motion picture concerns.[7] Moreover, as a result of the supplemental agreement of June 6, 1912, the manufacturers of motion pictures licensed by the Motion Picture Patents Company were no longer compelled by the agreement to purchase film from one manufacturer.[8]

The district court which declared that the Eastman Kodak Company violated the Sherman Act held that the above contract between the Eastman and Patents companies was not unlawful in that it did not bind two competing companies and therefore did not restrain trade. The court attempted to reason by analogy from the decision of the United States Supreme Court in the shoe machinery case[9] that a combination of non-competing parts constituted no violation of the Sherman Act.[10]

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[5] U. S. v. Motion Picture Patents Company. Brief for the United States, pp. 218-219.

[6] U. S. v. Eastman Kodak Company, Vol. 5, Govt. Exhibit 142, pp. 2413-2419. Also see *Ibid.*, Exhibits 143-145.

[7] For example, the exclusive contract of this company with the Independent Moving Picture Company of America, may be found in *Ibid.*, Vol. VI, Govt. Exhibit 312, pp. 3241-3243.

[8] U. S. v. Motion Picture Patents Company, Brief for the United States, pp. 240-241. *Ibid.*, Article 8, pp. 4-5.

[9] 227 U. S. 202.

[10] 226 Fed. Rep. 62, Aug., 1915.

This agreement between the Eastman and Patents companies was exclusive in character. It confined the market for films, from the standpoint of both selling and buying, to these two companies. The whole arrangement tended to preserve their power, regardless of their efficiency and to discourage the development of other film companies and manufacturers of motion pictures.

Dictation of Supplementary Supplies

A patent, as previously explained, confers the exclusive right to make, use, and vend the invention—that is, the right to exclude others from making, using, and vending the invention. These rights, especially those relating to use and sale, have been exploited in the past by imposing certain conditions with respect to them which unduly extended the monopoly granted by the patent law. More specifically, these conditions involved attempts to dictate supplementary supplies and control complementary goods on the one hand and to maintain re-sale prices on the other. It may be stated in advance that the lower Federal courts generally upheld these marketing practices until the Supreme Court pronounced their illegality a few years ago.

Button-fastener Case. The first decision of a Federal court which sanctioned the patentee's dictation of supplementary supplies for his invention was in the case of Heaton-Peninsular Button Fastener Company v. Eureka Specialty Company, known as the button-fastener case.[11] It served as a precedent in many decisions of the lower courts relating to both the stipulation of other products and the maintenance of re-sale prices by the patentee.

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[11] 77 Fed. Rep. 288 (1896), reversing 65 Fed. Rep. 619. The circuit court of appeals cited the cotton tie case as its authority, 106 U. S. 89 (1882). In that instance the cotton bale ties were sold, each bearing the words stamped in the metal: "Licensed to use only once." These words did not have anything to do with the rights of the parties in the suit. "The defendants were held liable as infringers in that case, not because they violated a 'license to use only once,' but because they reconstructed and remade the invention after it had been destroyed." (Gladney, *Restraints of Trade in Patented Articles,* p. 113.) Also the button-fastener case cited Morgan Envelope v. Albany Perforated Wrapping Paper Co., 152 U. S. 425 (1894). Although the issues in these two cases did not exactly coincide, the decision in the latter indicated, not the legality, but the illegality, of the patentee's attempt to dictate the supplementary supplies for his invention, and presented a line of argument analogous to that in the projecting machine case.

The case was decided in 1896 by Judge (later Mr. Justice) Lawton, Judge Hammond, and Judge (later Chief Justice) Taft. The button-fastener company owned several patents on a device for fastening buttons to shoes with metallic fasteners. A restriction inscribed upon a metal label was affixed to each machine:

> "Conditions of Sale. This machine is sold and purchased to use only with fasteners made by the Peninsular Novelty Company, to whom the title to said machine immediately reverts upon violation of this contract of sale."[12]

The fasteners or staples were not patented. The manufacturer of the devices or machines sold them at cost to shoe dealers; it expected to receive its profit from the sale of the staples for them. The Eureka company, knowing of the patents and notice of the Peninsular company, sold staples adapted for use with the latter's machines. The Peninsular company sued the Eureka company as a contributory infringer, as one who had coöperated in a use forbidden by the notice. Important excerpts from the court's decision are presented:

"In view of the conspicuous character of both the machine and the notice permanently affixed thereon, every one buying must be conclusively presumed to have notice that the owners of the patents intended by the inscription on the machine to grant only a restricted license for its use, and it is difficult to see why such purchaser is not to be regarded as acquiring and accepting the structure subject to this restriction. The buyer of the machine undoubtedly obtains the title to the materials embodying the invention, subject to a reverter in case of violation of the conditions of the sale. But, as to the right to use the invention, he is obviously a mere licensee, having no interest in the monopoly granted by the letters patent."[13]

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[12] 77 Fed. Rep. 288, 290.

[13] *Ibid.*, p. 290.

Note the foregoing distinction between the materials embodying the invention and the use of the invention.[14] It may be properly asked how one may become the owner of the materials embodying an invention and not of the use of the invention. The materials are bought as a unified product for a particular use and not for the metal, wood, etc., which they represent. An economic good may be defined as the sum of its uses. Therefore, how can one be the owner of the matter which it contains and only a licensee to use it?

To resume: "It must follow, therefore, that the purchaser of one of complainant's machines subject to a restricted use takes the structure with a license to use the invention only with staples made by the patentee. That the complainant sells the machine through jobbers, and not directly to those who buy for use, is immaterial, under the facts stated on the face of the bill. The jobber buys and sells subject to the restriction, and both have notice of the conditional character of the sale, and of the restriction on the use." [15]

The court then outlined the conditions under which the licensee became an infringer. "The control reserved by the patentee as to the use of the machine has the effect of continuing it within the prohibition of the monopoly. The license defines the boundaries of a lawful use, and estops the licensor from the assertion of his monopoly contrary to its terms. On the other hand, a use prohibited by the license is a use in defiance of the monopoly reserved by the patentee, and necessarily an unlawful invasion of the rights secured to him by his patent." [16] The tribunal declared that those who aided such infringement by intentionally and maliciously persuading and inducing the licensees to exceed their licenses by furnishing them with the means for such infringement were themselves infringers. It concluded that the patents were infringed, and that all engaged directly and intentionally became joint infringers.[17]

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[14] In the Dick case (224 U. S. 1), discussed in a later part of this chapter, the Supreme Court made a similar distinction.

[15] 77 Fed. Rep. 288, 290-291.

[16] *Ibid.,* p. 291.

[17] *Ibid.,* p. 297.

The court indicated the possible economic effects of its decision, as follows:

"The inventions covered by complainant's patents are not of such character as to enable them, by retaining the exclusive use, to absorb either the making of shoes, or the minor work of fastening buttons to shoes. In the exercise of the right of exclusive use, they have put on the market a structure embodying their devices, and licensed the purchaser to use the invention 'only with staples' made by themselves. In other words, they have chosen to fix the price for the right of use at the profit resulting from the sale of staples. As observed by counsel for complainant, 'The fasteners are thus made the counters by which the royalty proportioned to the actual use of the machine is determined.' This method of licensing their mechanism may or may not result in the engrossment of the market for staples. So long as their invention controls the market for button-fastening appliances, and to the extent that their machines shall supersede other modes of clinching staples, just so long will they be enabled to control the market for staples. Their monopoly in an unpatented article will depend upon the merit of their patented device, and the extent to which other clinching devices are superseded by it."[18]

The Supreme Court in 1912 sanctioned this interpretation of patent rights in the Dick case;[19] and in 1917 overruled it in the projecting machine case.[20] The Supreme Court in the latter case criticized the button-fastener decision in this fashion:

"This decision proceeds upon the argument that, since the patentee may withhold his patent altogether from public use, he must logically and necessarily be permitted to impose any conditions which he chooses upon any use which he may allow of it. The defect in this thinking springs from the substituting of inference and argument for the language of the statute, and from failure to distinguish between the rights which are given to the inventor by the patent law and which he may assert against all the world through an infringement proceeding, and rights which he may create for himself by private contract, which, however, are subject to the rules of general, as distinguished from those of the patent, law."[21]

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[18] 77 Fed. Rep. p. 296.

[19] 224 U. S. 1.

[20] 243 U. S. 502, Motion Picture Patents Co. v. Universal Film Co.

Crown Cork and Seal Company Cases. This corporation, of Baltimore, Maryland, owned several patents relating to an automatic crown machine for applying crown corks or caps to bottles. It "licensed" the purchaser of the machine, who paid $1800 for it. One provision of the "License to operate" will be noted:

> "Upon the granting of the license we agree and obligate ourselves that the system and machine shall only be used and operated by us in connection with crown corks, purchased from the Crown Cork & Seal Co., and bottles made, by properly authorized manufacturers, with the company's standard finishing tools."[22]

This restriction gave the company a monopoly of the corks or caps used with its patented machine and of the finishing tools employed in manufacturing all the bottles used with this machine.

The United Cork and Seal Company, a small competitor, was unable, in view of the license restrictions of the Crown company, to market its bottle stoppers in sufficient quantities to make a fair profit on the capital invested.[23] Lower Federal courts upheld these license restrictions.[24] They are no longer valid, however, in view of the projecting machine decision in 1917.

The Dick or Mimeograph Case. The A. B. Dick Company, the manufacturer of a patented stencil duplicating machine known as the "rotary mimeograph," sold it subject to the following license restriction:

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[21] 243 U. S. 502, 514.

[22] Hearings before the House Com. on the Judiciary, Patent Legislation, Serial No. 1, 1912, p. 165.

[23] *Ibid.*, p. 177.

[24] Crown Cork & Seal Co. v. Brooklyn Bottle Stopper Co., 172 Fed. Rep. 225; *Ibid.* v. Standard Brewery Co., 174 Fed. Rep. 252; and *Ibid.* v. Greenberger, 174 Fed. Rep. 252.

> "This machine is sold by the A. B. Dick Company with the license restriction that it may be used only with the stencil paper, ink, and other supplies made by A. B. Dick Company, Chicago, U. S. A."[25]

A similar restriction, also appearing in the form of a printed notice, was placed upon the "rotary neostyle," a machine much like the "rotary mimeograph."[26] Further, the A. B. Dick Company sold its patented stencil duplicating papers upon the following condition:

> "This composite stencil sheet is sold by the A. B. Dick Company with the license restriction that it may be used only on Edison's rotary mimeograph No. 75, and only with ink made by said company. (This stub is licensed for use only once.)"[27]

In addition, the cans of stencil ink sold by this company were subject to a restriction:

> "Notice to mimeograph users: Every mimeograph is sold with a proper license restriction covering the use of stencil paper, ink, and other supplies, and is so marked."[28]

The Supreme Court considered the printed notice on the "rotary mimeograph" in announcing its decision because the case arose from the violation of it. Henry, the defendant, had made a special ink designed for use on the mimeograph, and, with knowledge of the printed restriction, had sold this ink to an owner of one of complainant's machines. The court declared him guilty of contributory infringement.[29] Its decision furnished a legal foundation to a monopoly in both patented and unpatented goods by allowing the patentee to stipulate that he alone shall furnish the supplies used with his invention. It should be added that the rule thus announced in the Dick case had been applied in a number of instances in the lower courts.[30]

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[25] Appeal from Circuit Court, Jan. 11, 1907, 149 Fed. Rep. 425.

[26] Annual report of the Fed. Trade Commission, 1917, Ex. 5, which contains complaint of Fed. Trade Commission v. A. B. Dick Co.

[27] *Ibid.*, p. 60.

[28] Agreements between the Dick Company and dealers in mimeographs provided for the carrying out of the above restrictions. *Ibid.*, p. 60

[29] Contributory infringement is the making and selling of one element of a combination covered by a patent with the intention and for the purpose of bringing about its use in such a combination. (Rogers on Patents, Vol. I, p. 150.) Some of the most liberal interpretations of the patent laws by the courts pertain to this subject. The early judicial decisions stated that contributory infringement included the making and selling of only those articles to be used as parts of a patented combination, thus excluding from this category articles of general use and of a varied suitability. For example, Rumford v. Hygienic, 148 Fed. Rep. 862, 866.

The Supreme Court pointed out that a patent includes the distinct rights of making, selling, and using, and that each is a separable and substantial right. In addition, the greater right of exclusive use of the patentee embraces the lesser one of permitting the licensee to use only upon prescribed conditions. Also the tribunal differentiated property right in the machine and property right in the monopoly covering the machine; it held that the patentee, though selling the former in its entirety, may not part with the latter or may part with it only upon certain conditions. This principle, which the lower courts, in other cases, had indicated, it expressed as follows:

"The property right to a patented machine may pass to a purchaser with no right of use, or with only the right to use in a specified way, or at a specified place, or for a specified purpose. The unlimited right of exclusive use which is possessed by and guaranteed to the patentee will be granted if the sale be unconditional. But if the right of use be confined by specific restriction, the use not permitted is necessarily reserved to the patentee. If that reserved control of use of the machine be violated, the patent is thereby invaded. This right to sever ownership and use is deducible from the nature of a patent monopoly and is recognized in the cases." [31]

This reasoning is untenable, for, as a practical matter, how can the property right to a patented machine pass to a purchaser with no right to use? Would one buy the machine for any other purpose than to use it? The materials of which a mimeograph is built would cost much less than the mimeograph.

The court placed on the same plane sundry restrictions upon the use of a patent. "The conclusion we reach is that there is no difference, in principle, between a sale subject to specific restrictions as to the time, place, or purpose of use, and restrictions requiring a use only with other things necessary to the use of the patented article purchased from the patentee. If the violation of the one kind is an infringement, the other is also. That a violation of any such restriction annexed to a sale by one with notice constitutes an infringing use has been decided by a great majority of the Circuit Courts and Circuit Courts of Appeal, and has come to be a well-recognized principle in the patent law, in accordance with which vast transactions in respect to patented articles have been conducted." [32]

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[30] A list of these cases may be found in Appendix II.

[31] 224 U. S. 1, 24-25.

Lastly, the decision set forth what constitutes infringement. "Undoubtedly a bare supposition that by a sale of an article which, though adapted to an infringing use, is also adapted to other and lawful uses, is not enough to make the seller a contributory infringer. Such a rule would block the wheels of commerce. There must be an intent and purpose that the article sold will be so used. Such a presumption arises when the article so sold is only adapted to an infringing use. It may also be inferred where its most conspicuous use is one which will coöperate in an infringement when sale to such user is invoked by advertisement." [33]

The court tried to answer the argument that the legality of such license restrictions might give the patentee the "practical monopoly of the market" for supplementary but unpatentable supplies. It reasoned:

"The market for the sale of such articles [i.e., unpatented supplies] to the users of his machine [i.e., the patent owner's patented machine], which, by such a condition, he takes to himself, was a market which he alone created by the making and selling of a new invention. Had he kept his invention to himself, no ink could have been sold by others for use upon machines embodying that invention. By selling it subject to the restriction he took nothing from others and in no wise restricted their legitimate market." [34]

"The public is always free to take or refuse the patented

[32] 224 U. S. 1, pp. 35-36.

[33] *Ibid.*, p. 48.

[34] *Ibid.*, p. 32.

article on the terms imposed. If they be too onerous or not in keeping with the benefits, the patented article will not find a market. The public, by permitting the invention to go unused, loses nothing which it had before, and when the patent expires will be free to use the invention without compensation or restriction." [35]

A fundamental weakness in this argument lies in the extent to which a patented machine or other article may be unpatented. All the patents covering it, except a few insignificant ones, may have expired. In this particular instance all the basic patents had terminated, as subsequent paragraphs of this chapter reveal; but apparently this did not affect in the least the legality of the license restrictions as described. The result was the monopolistic control of the stencil duplicating machine, most of the physical parts of which were unpatented, and in addition of the unpatentable products used with the machine.

This opinion of the Supreme Court, though agreeing with precedent as established by the lower courts, aroused a storm of protest from the public. Unfortunately this majority opinion was handed down by only four of the nine judges.[36] Two of the judges were absent, and the other three—Chief Justice White and Justices Hughes and Lamar—joined in a very pronounced and vehement dissenting opinion. These three judges maintained that the majority opinion contained the potentialities of dire consequence, for—

"Take a patentee selling a patented engine. He will now have the right by contract to bring under the patent laws all contracts for coal or electrical energy used to afford power to work the machines, or even the lubricants employed in its operation. . . . Take a patented cooking utensil. The power is now recognized in the patentee to bind by contract one who buys the utensil to use in connection with it no other food supply but that sold or made by the patentee." . . .[37]

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[35] *Ibid.*, pp. 34-35.

[36] Lurton, who wrote the decision in Heaton-Peninsular Button Fastener Company v. Eureka Specialty Co.; Van Devanter, in National Phonograph Co. v. Schlegel; McKenna, in Continental Paper Bag Co. v. Eastern Paper Bag Co.; and Holmes, who dissented in Dr. Miles Medical Company v. Park. Three of these cases are described in this and other chapters.

The Supreme Court, in 1917, reversed this (Dick) decision, in the projecting machine case.[38] "It is obvious that the conclusions arrived at in this opinion are such that the decision in Henry v. A. B. Dick Co. must be regarded as overruled."[39] This reversal did not affect the control of stencil duplicating machines by the A. B. Dick Company, although it took away the legal prop for dictating the supplies for the machines, also for stipulating the machines for the patented supplies.

A few months before the projecting machine decision, the Federal Trade Commission issued a complaint against the Dick company to prevent its use of the tying clauses already described as in violation of section 3 of the Clayton Act. Soon after the Commission had taken testimony in the case, the Supreme Court announced the projecting machine decision, whereupon the Dick company dropped its defense in the Commission's proceedings. The Commission, therefore, issued an order "prohibiting the respondent from selling its machines and paper upon the condition, agreement, or understanding, whether embodied in a so-called license restriction or in a contract, or otherwise, that the purchaser should not use therewith the machines or supplies of a competitor."[40] The A. B. Dick Company reformed the conduct of its business to conform with the Commission's order.[41]

a. Analysis of Dick Patents. The mimeograph case and the consequent public discussion emphasized the important part played by the patents of the Dick Company. A somewhat detailed study of them will accordingly be helpful.

In 1916, a few months before the overruling of the mimeograph decision, it had 128 patents, distributed among different subjects as follows: duplicating machines, 66; type-printing machines, 3; sheet feeding apparatus, 24; delivery device, 2; ink, 2; stencil sheets, 28; miscellaneous, 3. Of these 128 patents, 31 had expired, 97 were unexpired. These ranged as follows: duplicating machines—11 expired, 55 unexpired; printing machines—3 unexpired; sheet feeding apparatus—24 unexpired; delivery device—2 unexpired; ink—2 expired; stencil sheets—16 expired, 12 unexpired; miscellaneous—2 expired, 1 unexpired.

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[37] 224 U. S. 1, 55.

[38] 243 U. S. 502. Three of the judges gave a minority decision, following the line of argument employed in Henry v. Dick, 224 U. S. 1.

[39] *Ibid.*, p. 518.

[40] Annual Report of the Fed. Trade Commission, 1917, p. 9.

[41] *Ibid.*, p. 9.

In 1916 it seemed that within four years all of the important patents on stencil duplicating machines would expire; the basic ones had already expired. It appeared at that time—certainly within a few years—that a machine constructed from expired patents would give satisfactory results. The recent Dick patents, issued shortly before 1916, on these machines covered mere improvements upon the basic patents. This fact was practically admitted in the following quotation from a pamphlet of the A. B. Dick Company:

"This apparatus (duplicating machine) may be an exceedingly simple affair, made up of little more than a flat bed and a hand roller, with a capacity of but a few score copies an hour. Or it may be an electrically driven, automatically fed rotary device, capable of producing more than a hundred perfect copies per minute. . . .

"For more than thirty years we have been making duplicating devices—following the fundamental idea contained in the original patents of Mr. Thomas A. Edison and Mr. A. B. Dick." One of the recent additions to the most complete duplicating machine, Model 78, pertained to the propelling power. But this, like the other patented improvements, was not essential to the operation of the machine. "The electric motor and the mechanism by which the mimeograph is driven is really a separate unit and may be added or not, as may be desired." [42] Models 75 and 76 did not have this and other improvements—they seemed practically unprotected by patents.

In 1916 the unexpired patents relating to paper-feeding apparatus covered the following points: (1) automatic paper feeder; (2) paper-stop; (3) movement of sheet-pile in vertical direction as sheets are taken from it; (4) feeding of one sheet at a time; (5) support, guide, holding, forwarding, positioning, and non-curling of sheets; (6) adjustment of time in feeding sheets; (7) registration of the sheets fed; (8) non-action if no sheet present. Only Model 78, which represented, in 1915, about 40 per cent of the Dick sales of stencil duplicating machines, included an automatic feeder; the others—Models 75, 76, 77, and 80—had no automatic feeders.[43] Therefore, the 23 patents on such apparatus, all unexpired, protected only Model 78. The delivery device, still protected by patents in 1916, was not essential to the operation of the machine. Models 75 and 76 did not have such a device.

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[42] Better Duplicating at Less Cost, pp. 4-6.

All the patents on ink, two in number, had expired, the last one January 10, 1916. This fact is significant in view of the part played by the patented ink of the A. B. Dick Company in sustaining and promoting its monopoly. In 1916 there were no patents to lend legal sanction to the prohibition of its use on any other than Dick duplicating machines. This company emphasized the desirability of using only its ink to obtain the best results from its machines.

A majority of the important patents concerning stencil sheets had expired. (1) Wax stencil sheets in 1916 no longer enjoyed the protection of patents. Likewise, there had been an expiration of all the patents covering (2) the formation of characters in stencil by means of heat, adhesion, pressure, abrasion, and extraction; and (3) sheets used in front and rear of wax stencil in the preparation of the stencil sheet. One can safely conclude that in 1916 wax stencil, together with the formation of characters in it, no longer enjoyed any substantial protection of patents.

The unexpired patents pertaining to stencil sheets included in 1916 only one original line of invention, namely, (1) dermatype stencil sheet; and this constituted merely a new variety of stencil paper. The fact is that the sales of stencil sheets by the A. B. Dick Company consisted in 1916 of the dermatype almost exclusively. This company in 1916 recommended and advertised the superiority of the new dermatype—"the wonderful sheet of paper that has absolutely revolutionized duplicating processes," and stated that it was waxless and possessed greater indestructibility and accuracy of impression than the wax stencil.[44] The company added, however, that it would furnish the wax stencil if demanded, and quoted prices thereon. Whether this change from wax to the dermatype was due to the expiration of patents on the former and the existence of new patents on the latter, or to the genuine superiority of the latter, or both, is an interesting question. A complete change would have meant a new patent monopoly on stencil paper and hence the legal right, under the Dick decision, of dictating the machine on which the supplies must be used.

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[43] Better Duplicating at Less Cost, pp. 11-16.

Other unexpired patents relating to stencil sheets covered (2) a stencil-moistening composition, and (3) sheets in front and rear of stencil for moistening, absorbing, protecting, etc., and (4) placing, protection, and arrangement of a stencil (invalid in Great Britain). The only one on (5) wax stencil covered a coloring material incorporated in the wax to facilitate the cutting of the stencil—a very minor invention.

These facts would indicate that in 1916 and earlier years the monopoly of the A. B. Dick Company in stencil duplicating machines and its legal right to dictate supplementary supplies rested upon a few minor patents, all covering slight improvements.

The Projecting Machine Case. The Motion Picture Patents Company owned a patent on a projecting machine and attempted to define the films with which it must be used. This company licensed the Precision Machine Company to manufacture and sell these machines upon the conditions set forth in the "notice" which the manufacturer attached to each machine:

> "The sale and purchase of this machine gives only the right to use it solely with moving pictures containing the invention of Reissued

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[44] *Ibid.*, p. 1.

Patent No. 12,192, leased by a licensee of the Motion Picture Patents Company, the owner of the above patents and reissued patent, while it owns said patents, and upon other terms to be fixed by the Motion Patent No. 12,192, leased by a licensee of the Motion Picture Patents is in use and while the Motion Picture Patents Company owns said patents. The removal or defacement of this plate terminates the right to use this machine.

"Motion Picture Patents Company,
"New York, N. Y., U. S. A."[45]

After the foregoing patent on moving pictures had expired, the Universal Film Company made films embodying the invention and sold them to a rental exchange, which in turn furnished them to an exhibitor for use. The films were exhibited by means of a projecting machine on which the notice quoted appeared. The Motion Picture Patents Company as a result brought suit against the Universal Film Company on the ground that the use of such films upon this machine constituted infringement.[46] The Circuit Court of Appeals pronounced the license notice in conflict with that portion of the Clayton Act of 1914 which forbids the lease or sale of products upon the condition that the lessee or purchaser shall not use or deal in the products of a competitor:

"The testimony shows that the complainant has a monopoly under its patents of projecting machines so that, if no films not manufactured by complainant can be used upon these machines, the complainant will obtain an absolute monopoly of the film business, in spite of the fact that its patent on films has expired. If the prohibitions of the Clayton Act mean anything at all, this case falls within them, and the restrictions as to use of films other than complainant's with the projecting machines are therefore void."[47]

This case was appealed to the Supreme Court.[48] It declared that the two questions for decision were as follows:

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[45] Motion Picture Patents Company v. Universal Film Manufacturing Co., 235 Fed. Rep. 398, 399, C. C. A., 1916.

[46] *Ibid.*, p. 399.

[47] *Ibid.*, p. 400.

[48] 243 U. S. 502 (1917). Three of the judges gave a minority decision, following the line of argument employed in Henry v. Dick, 224 U. S. 1.

"First. May a patentee or his assignee license another to manufacture and sell a patented machine, and by a mere notice attached to it limit its use by the purchaser or by the purchaser's lessee, to films which are no part of the patented machine, and which are not patented?

"Second. May the assignee of a patent, which has licensed another to make and sell the machine covered by it, by a mere notice attached to such machine, limit the use of it by the purchaser or by the purchaser's lessee to terms not stated in the notice but which are to be fixed, after sale, by such assignee, in its discretion?"[49]

The court held that in interpreting the patent law, it would be of service to keep in mind three rules:

1st. The scope of every patent is limited to the invention described in the claims contained in it, read in the light of the specification;

2nd. The patentee receives nothing from the law which he did not have before, and the only effect of his patent is to restrain others from manufacturing, using or selling that which he had invented;

3rd. The primary purpose of our patent laws is not the creation of private fortune for the owners of patents, but is "to promote the progress of science and useful arts."[50]

In view of these rules the court decided that the patent granted on a machine is restricted "to the mechanism described in the patent as necessary to produce the desired results. It is not concerned with and has nothing to do with the materials with which or on which the machine operates." Further, "Whatever the right of the owner may be to control by restriction the materials to be used in operating the machine, it must be derived through the general law from the ownership of the property in the machine, and it cannot be derived from or protected by the patent law, which allows a grant only of the right to an exclusive use of the new and useful discovery which has been made, this and nothing more."[51] The court decided that, "by virtue of the patent law, one who had sold a patented machine and received the price, and had thus placed the machine so sold beyond the confines of the patent law, could not, by qualifying restrictions as to use, keep under the patent monopoly a subject to which the monopoly no longer applied." [52] The tribunal did not base its decision upon the Clayton Act: "Our conclusion renders it unnecessary to make the application of this statute to the case at bar which the Circuit Court of Appeals made of it, but it must be accepted by us as a most persuasive expression of the public policy of our country with respect to the question before us." [53]

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[49] *Ibid.*, pp. 508-509.

[50] *Ibid.*, pp. 510-511.

[51] *Ibid.*, pp. 512, 513.

The economic evils which could arise from license restrictions like the one in question received consideration, as the following extract from the decision shows: "The perfect instrument of favoritism and oppression which such a system of doing business, if valid, would put into the control of the owner of such a patent, should make courts astute, if need be, to defeat its operation. If these restrictions were sustained, plainly the plaintiff might, for its own profit or that of its favorites, by the obviously simple expedient of varying its royalty charge, ruin anyone unfortunate enough to be dependent upon its confessedly important improvements for the doing of business." [54]

The Motion Picture Patents Company argued that the license restrictions redounded to the economic welfare of the public, and the court gave a very effective answer: "It is argued as a merit of this system of sale under a license notice that the public is benefited by the sale of the machine at what is practically its cost, and by the fact that the owner of the patent makes its entire profit from the sale of the supplies with which it is operated. This fact, if it be a fact, instead of commending, is the clearest possible condemnation of, the practice adopted, for it proves that under color of its patent the owner intends to and does derive its profit, not from the invention on which the law gives it a monopoly, but from the unpatented supplies with which it is used, and which are wholly without the scope of the patent monopoly, thus in effect extending the power to the owner of the patent to fix the price to the public of the unpatented supplies as effectively as he may fix the price on the patented machine."[55]

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[52] Boston Store v. American Graphophone Co., 246 U. S. 8, 25.

[53] 243 U. S. 502, 517-518.

[54] *Ibid.,* p. 515.

Certain facts in this particular case supported the "condemnation of the practice adopted." As the court stated, "It was admitted at the bar that 40,000 of the plaintiff's machines are now in use in this country, and that the mechanism covered by the patent in suit is the only one with which motion picture films can be used successfully."[56]

The Motion Picture Patents Company was shorn of its monopolistic power other than that which the patent law confers—the exclusive right to make, use, and sell its patented inventions; this was the result of the decisions of both the lower and the supreme courts—one based on the Clayton Act and the other on the interpretation of the patent and antitrust laws. Moreover, this decision in effect pronounced the illegality of all attempts to dictate the supplementary supplies of patented articles, and therefore brought to an end a trade practice of many manufacturers of patented articles that had prevailed since the early nineties.[57] For approximately twenty-five years the people had paid tribute to them, an economic loss which must be considered in making an appraisal of the net worth of the patent system.

Criticism. In the writings of patent lawyers and decisions of courts relating to the right of the patentee to dictate supplementary supplies, considerable emphasis has been placed on the economic necessity of such a privilege. One argument for the stipulation of supplies, even at high prices, was that the recompensation received by the patentee depended entirely on the amount of benefit which the licensee derived from using the patented article,—in other words, the best measure of the benefit was the quantity of supplies used. This would be true if the entire remuneration of the patentee came from this source, as is true of the United Shoe Machinery Company. But the Peninsular, Dick, and other sellers of patented articles, in whose behalf mainly these arguments were made, charged initial prices for them. The Peninsular company, it was claimed, sold its button-fastening machines at cost; and the Dick company, its duplicating machine at $32, somewhat below cost.

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[55] *Ibid.*, pp. 516-517.

[56] *Ibid.*, p. 508.

[57] For example, the American Can Co., in leasing its patented can-making machinery to salmon packers, stipulated that the "machines may only be used in making cans . . . in connection with can ends furnished by the American Can Co." Also, on some of the kodak film of the Eastman Kodak Co., there was the notice that "when used for autographic purposes this film is licensed for use in the Autographic Kodak only."

An alleged advantage of this practice to the licensee was that it distributed the financial cost over a long period, and therefore made payments easier and encouraged the introduction of the patented article. The weight of this point, like that of the preceding one, depended upon the extent to which the financial reward of the patentee came from this source. Moreover, such an advantage to the licensee was offset, it seems, by the inconvenience of the restriction. Many licensees of the Dick, shoe machinery, and other companies have indicated their preference for the acquisition of their patented articles without restrictions of any sort.

This practice enabled the patentee to reap high profits from his supplies and hence increased the total financial return from his invention. It meant greater prospective gains and therefore greater efforts to invent and maintain fundamental patents so as to continue the practice. But this argument overlooks the fact that it discouraged invention and other kinds of initiative with respect to the supplies. For example, one might have invented ink, stencil paper, etc., even superior to those produced by the Dick company, in the absence of its restrictions affecting these commodities.

This privilege, according to another argument, made possible a superior grade of supplies and repairs, for the manufacturer understood better than others the needs and possibilities of his patented article. The Dick company, for instance, argued that its restriction insured excellent ink, paper, and other supplies, and therefore satisfactory results to the user of the duplicating machine. It declared that the ink sold by others was inferior and ill adapted to the Dick machine.

The Peninsular company, by way of contrast, charged that the Eureka company intentionally sold staples specially adapted for its machine and therefore was an infringer. The inconsistency and weakness of this argument is evident. It should be remembered that patentees exercised this privilege with reference to both patented and unpatented supplies for their machines or other patented articles. It is true that the owner of a patented chemical process should furnish the delicate materials required and that the manufacturer of a very intricate article, whether patented or unpatented, should supply the parts and general repairs for it. However, general instructions from the manufacturer to this effect, together with the self-interest of the purchaser of the article, should suffice.

It was maintained that the inventor of a machine or other good created the demand for the accessories used with it; that the demand for them did not exist previously; and that he had, therefore, the exclusive right to sell them. The Oldfield report of 1912 ridiculed this idea by asking, "How is it possible to say that the inventor of a patented mail chute creates the demand for the letters and packages deposited therein?" [58]

In the final analysis any attempt to tie one commodity to another in selling either of them is fundamentally unfair. It makes the sale of the subsidiary article depend upon the tying clause instead of its own merits. Any article which has not the necessary attributes—price, quality, etc.—to stimulate its sale and use, does not deserve a contractual or other arrangement which will enforce its sale and use. The very existence of such restrictions suggests that in its absence a competing article of equal or better quality would be offered at the same or at a lower price; necessarily so, for otherwise there would be no occasion for the restriction. Tying clauses attached to the use of a patented article, illustrated by those already described, introduce an artificial element. In short, they lessen competition and prevent the manifestation of economic efficiency.

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[58] Oldfield Report of 1912, p. 11.

CONTROL OF COMPLEMENTARY GOODS

United Shoe Machinery Company. This concern acquired patents and other property relating to shoe machinery (see Chapter III) and leased its machines to shoe manufacturers upon conditions that were very exclusive in character. These conditions were known as "tying" clauses.[59] The manufacturers agreed to the following:

> "(1) Shall not use the machine in the manufacture or preparation of footwear which has not had certain essential operations performed upon it by other machines leased from the lessor.
>
> "(2) Shall use the leased machine to its fullest capacity.
>
> "(3) Shall use exclusively the leased machine for the class of work for which it is designed.
>
> "(4) Shall obtain from the lessor exclusively, at such price as it may establish, all duplicate parts and mechanisms needed in operating the leased machines and all supplies in connection with them.
>
> "(5) Shall use patented insoles made on defendant's [United company's] machinery only in connection with certain footwear manufactured by machinery leased from the lessor.
>
> "(6) Shall lease from the lessor any additional machinery which he may need for work in the same department as that of the machine leased.
>
> "(7) Shall permit the lessor to determine whether the lessee has in his factory more machinery adapted for doing the same work than he needs, and, if so, to remove such machines as, in the opinion of the lessor, are unnecessary.
>
> "(8) Shall, at the election of the lessor, suffer a termination of all leases which he may have and the removal of all machines leased by him from the defendants, in the event of the violation of any term of any one of the leases."[60]

"It is hard to see how the ingenuity of man could have devised a scheme that would more effectually create a monopoly."[61] Some of the restrictions did not seem objectionable when considered alone, yet when taken together they tended to produce a cumulative monopolistic effect. Apparently they were designed to compel the shoe manufacturers to use exclusively the machines and repairs of the United company.[62] The manufacturer had the choice of obtaining either all or none of the shoe machinery required in his factory from this company. No other company could furnish a full set of shoe machinery. It was necessary, therefore, to use exclusively the machines of the United company in order to engage in the manufacture of shoes.

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[59] These clauses appear in full in Appendix III.

[60] A description and discussion of these conditions and other aspects of the United company appear in: (1) Hearings before the House Committee on the Judiciary, Trust Legislation, Serial No. 2, Patent Legislation, Serial No. 1, 1912, pp. 31-32, 45-47, 55-129, 131-162, 179-189, 190-205; (2) *Ibid.*, Trust Legislation, Serial No. 3, Patent Legislation, Serial No. 2; (3) *Ibid.*, Letter and Memorandum of Louis D. Brandeis, Trust Legislation appendix to Serial Nos. 2 and 3; (4) House Report, No. 627, 63rd Cong., 2nd Sess., Anti-trust Legislation (Clayton Report), 1914, p. 13; (5) Oldfield Report of 1912, p. 16.

Other manufacturers of shoe machinery could supply certain kinds of shoe machinery but not a complete set. The United company, by means of patents, controlled the manufacture of lasting machines, which were essential in the manufacture of shoes. But a shoe manufacturer, in order to use the lasting machine of the United company, had to consent to use exclusively the stitcher, welter, metallic-fastener, and other machines of this company.[63] Would-be competitors of this company, therefore, experienced great difficulty in selling or leasing their specific machines.[64] They could not compete effectively without a complete and efficient set of shoe machinery based largely upon a new line of inventions.

The Shoe Manufacturers' Alliance, organized in 1911 and composed of many shoe manufacturers in the United States, attempted to secure relief from the tying clauses of the leases. In 1914, when trust legislation was pending in Congress, the Alliance wrote to the Attorney-General:

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[61] 227 Fed. Rep. 507, 511.

[62] It has been stated that the various parts of the machine were not made on the ordinary standards; for example, that the bolts for these machines were off-sizes, so that they could not be purchased at a hardware store. Hearings before the Committee on Interstate Commerce, 62nd Congress, Vol. I, p. 1186.

[63] An opinion to the contrary was expressed by L. D. Brandeis in Hearings before the House Committee on the Judiciary, 63nd Congress, 2nd Session, Trust Legislation, Serial 7, Vol. 2, pp. 654-660.

[64] One of the competitors was the General Shoe Machinery Company, Boston, Mass., successor to Boylston Manufacturing Company. The experience of the Boylston company in trying to sell its machines is described in Hearings before the House Committee on the Judiciary, 63rd Congress, 2nd Session, Trust Legislation, Serial 7, Vol. 3, pp. 1033-1045. R. H. Long Company of Framingham, Mass., a manufacturer of shoes and shoe machinery, has had litigation and controversy with the United company since 1906. (Personal correspondence.) The Standard Shoe Machinery Company was another shoe machinery concern.

"Whereas monopolies have grown up under what we believe to be an unwarranted interpretation of existing patent law, we respectfully call your attention to the fact that the 'trust' and 'patent' situations are very closely interwoven, and that the permission which many of the 'trusts' claim is granted them by patent ownership to insist upon 'exclusive-use' clauses and of 'tying' up a number of machines by restrictive leases, so that one or more machines cannot be used without the others, is responsible for many onerous conditions which are now enforced, and which are distinctly in restraint of trade. . . .

" 'The lease system is a greater invention than the shoe machinery'; but for its existence, in our judgment, there would be in a short time substantial and potential competition in the shoe-machinery field."

It should be pointed out that the shoe manufacturers as a class objected to the tying clauses and not to the leasing system. The Shoe Manufacturers' Association of Brockton, Massachusetts, declared that it was in favor of a continuance of the present lease system as used by the United company, provided that such provisions of the lease as operated to exclude the use of competitive machines be abolished, and that the penalty or charges for returning used machines be modified or wiped out.[65] The Supreme Court stated that the United company furnished machines of excellent quality; that it rendered valuable services in the installation of machines, instructions to operators, promptness in furnishing machines, and in making repairs and replacements.

The leasing of machines was especially favorable to the small manufacturer in that it tended to place him on an equal footing with a large competitor. Mr. Winslow, the president of the United company, testified that the royalties had been the same for all, whether they used a thousand machines or one; that they were charged by the pair; and that the service

[65] Oldfield Hearings of 1914, Part 10, p. 173.

was uniform.[66] The leasing system, therefore, has tended to make shoe manufacturing subject to constant expenses and has reduced the amount of capital necessary to engage in the business. These conditions have both stimulated competition in the shoe industry.[67]

A manufacturer of tacks, rivets, nails, etc., and the owner of patents, described the effect of the tying clauses on his business in the following words:

"Representing as I do, a company which is directly affected (and, we believe, unjustly) by what we also believe an unwarranted interpretation of the existing patent law by which we are prevented from disposing of a considerable part of one of our staple products to the shoe manufacturers of the country, many of whom are not only willing but would be glad to deal with us if they were not prevented from doing so because of certain tying and exclusive-use clauses existing in leases made by the owners of certain patents on certain classes of machinery which the shoe manufacturers are compelled to use, although our products are not in any way covered by the patents referred to, are obviously extending their monopoly beyond the point contemplated by the patent laws, etc." [68]

The "exclusive right to use" of a patent furnished the basis for the tying clauses, although the restrictions were more comprehensive and burdensome than those found in the Dick case. The former indirectly controlled the stages of manufacture of a particular product; the latter, only the auxiliary supplies used directly with its duplicating machines.

The judicial history of these tying clauses may be found in several decisions. First, it should be pointed out that the Supreme Court did not pass upon their legality in United States v. Winslow. "It is to be observed that the conditions now inserted in the leases are not alleged to have been contemporaneous with the combination, or to have been contemplated when it was made. The district court construed the indictment as confined to the merger of the companies, without regard to the leases subsequently made; and we have no jurisdiction to review this interpretation of the indictment."

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[66] Brief for the U. S. in U. S. v. United Shoe Machinery Co. (No. 207), p. 201.

[67] In 1915, $35,000,000 of property of the United company was in the hands of shoe manufacturers. It financed them to that extent. 222 Fed. Rep. 349, 359.

[68] Hearings before the Committee on Interstate Commerce, United States Senate, 63rd Cong., 2nd Sess., Vol. II, p. 1013.

The government in its suit against the United Shoe Machinery Company instituted in 1911, specifically attacked the "tying" clauses of the leases of this company. The District Court, in 1915, held that these clauses were in conformity with the patent rights enjoyed by this company.[69] The Supreme Court, May 20, 1918, upheld the opinion of the lower court, although by a vote of four to three.[70] The Clayton Act of 1914 played no part in either decision, as the government instituted the suit prior to its passage.

After the passage of the Clayton Act, the government brought suit against the United company on the ground that the tying clauses of its leases violated that section of this law which makes it unlawful to lease or sell machinery, etc., on any condition or agreement which will tend to prevent the lessee or purchaser from dealing with competitors of the lessor or seller. Several decisions unfavorable to the United company were handed down by the Federal courts.[71] An appeal was taken to the Supreme Court and it approved the decision of the lower court.[72] The following quotation summarizes the objectionable parts of the leases of the United company, and presents the decision of the court.

"Turning to the decree, it will be found that the court enjoined the use of (1) the restricted use clause, which provides that the leased machinery shall not, nor shall any part thereof, be used upon shoes, etc., or portions thereof, upon which certain other operations have not been performed on other machines of the defendants; (2) the exclusive use clause, which provides that if the lessee fails to use exclusively machinery of certain kinds made by the lessor, the lessor shall have the right to cancel the right to use all such machinery so leased; (3) the supplies clause, which provides that the lessee shall purchase supplies exclusively from the lessor; (4) the patent insole clause, which provides that the lessee shall only use machinery leased on shoes which have had certain other operations performed upon them by the defendants' machines; (5) the additional machinery clause, which provides that the lessee shall take all additional machinery for certain kinds of work from the lessor, or lose his right to retain the machines which he has already leased; (6) the factory output clause, which requires the payment of a royalty on shoes operated upon by machines made by competitors; (7) the discriminatory royalty clause, providing lower royalty for lessees who agree not to use certain machinery on shoes lasted on machines other than those leased from the lessor. The defendant's restrictive form of leases embraces the right of the lessor to cancel a lease for the breach of a provision in such lease, or in any other lease or license agreement between the lessor and the lessee. The lessor in such case is given the right, by notice in writing to the lessee, to terminate any and all leases or licenses then in force to use the machinery, and this notwithstanding previous breaches or defaults may have been unnoticed, waived, or condoned by or on behalf of the lessor. The district court held that the United company had the right to cancel a lease for a violation of the terms of the particular lease, but could not, without violating the act, reserve the right to cancel a lease because the lessee had violated the terms of some other lease. This part of the decree must be read in the light of the circumstances shown as to the necessity of procuring shoe machinery from the United company, and the danger of a lessee losing his ability to continue business by a forfeiture incurred from the breach of a single covenant in one lease.

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[69] 222 Fed. Rep. 349 (1915).
[70] 247 U. S. 32.
[71] 227 Fed. Rep. 507; 234 Fed. Rep. 127; and 264 Fed. Rep. 138.
[72] 258 U. S. 451, 456-458.

"While the clauses enjoined do not contain specific agreements not to use the machinery of a competitor of the lessor, the practical effect of these drastic provisions is to prevent such use. We can entertain no doubt that such provisions as were enjoined are embraced in the broad terms of the Clayton Act, which cover all conditions, agreements, or understandings of this nature. That such restrictive and tying agreements must necessarily lessen competition and tend to monopoly is, we believe, equally apparent. When it is considered that the United company occupies a dominating position in supplying shoe machinery of the classes involved, these covenants, signed by the lessee and binding upon him, effectually prevent him from acquiring the machinery of a competitor of the lessor, except at the risk of forfeiting the right to use the machines furnished by the United company, which may be absolutely essential to the prosecution and success of his business."

The control of complementary goods as illustrated by the tying clauses of the United company constitutes an ingenious sort of unfair competition. It is somewhat analogous to the dictation of supplementary supplies, because both represent an attempt to dominate other products and both deserve condemnation for the same reasons.

CHAPTER V

UNFAIR COMPETITION (*Continued*)

Maintenance of Re-sale Prices

In 1896 a Federal court for the first time sanctioned the patentee's dictation of supplementary supplies for his invention.[1] It was thought that this interpretation of "the exclusive right to use" would justify analogous restrictions concerning re-sale prices based upon "the exclusive right to sell." Therefore, scores of manufacturers sought to dictate the re-sale prices of their patented products: for example, watches, cameras, fountain pens, safety-razors, baseballs, tire chains, phonographs and records, drugs, sadirons, gas jets, carpet sweepers, vacuum cleaners, underwear, and pencil sharpeners.[2] Many decisions of the lower courts (the first one in 1901) and of the Supreme Court involved the legality of this practice.

Edison Phonograph Company v. Pike. The Edison company, the owner of two patents relating to improvements in phonographs and records, entered into an agreement with the Eastern Talking Machine Company which forbade the latter to sell patented phonographs below a certain schedule of prices. In addition, the agreement contained these clauses:

> "Jobbers must not sell or supply, either directly or indirectly, Edison phonographs or parts thereof, records or blanks, to any dealer who will not sign the agreement governing and controlling the sale of the same, nor to dealers who are on our suspended list.
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> "All Edison phonographs, records, and blanks are covered by United States patents, and are sold under the condition that the license to use and vend them implied from such sale is dependent

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[1] Button Fastener case, 77 Fed. Rep. 288.

[2] Copies of contracts, notices, etc., involving these articles appear in Appendix IV.

> on the observance by the vendor of all the foregoing conditions. Upon the breach of any of said conditions the license to use or vend said phonographs, records, and blanks immediately ceases, and any vendor or user thereafter becomes an infringer of said patents and he may be proceeded against by suit for injunction or damages or both."

The Eastern company purchased phonographs and records from the Edison company. On each box containing a phonograph the following appeared:

> "Notice to Dealers: This record is sold subject to restrictions as to the persons to and the prices at which it may be sold. Any violation of such restrictions makes the seller or user an infringer of the Edison Patents."[3]

An individual by the name of Pike knew of the agreement and the restriction; and having such knowledge, and without signing the agreement, bought phonographs and records from the Eastern company, and sold them. As a result the Edison company brought suit for infringement. The Circuit Court decided that it was forced to hold that the Eastern company, "by selling phonographs to the defendant in violation of its agreement with the complainant, became guilty of an infringement, and that by reason of this sale the patented phonographs so sold were no longer covered by the license originally granted to the Eastern Talking Machine Company. In selling these phonographs, now unlicensed, the defendant, who bought them with the knowledge of the restriction and of its breach, is also an infringer."[4] Hence, the jobber became an infringer by violating his agreement with the Edison company; the retailer infringed by disregarding the restrictions contained in the agreement and suggested by the printed notice.

Victor Talking Machine Company v. The Fair.[5] Another decision relating to the maintenance of re-sale prices of patented articles will be presented. The Fair, a department store in Chicago, bought a quantity of Victor machines from a jobber and sold them at less than the price prescribed by the Victor company. Yet The Fair knew of the "conditions" under which the jobber had bought the phonographs from the Victor company, for they appeared on a plate fixed on each machine, as follows:

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[3] Edison Phonograph Company v. Pike, 116 Fed. Rep. 863, C. C., June, 1902.

[4] *Ibid.*, p. 867.

[5] 123 Fed. Rep. 424, C. C. A., Apr., 1903, reversing 118 Fed. Rep. 609. Also see 166 Fed. Rep. 117, C. C. A., 1908.

> "Notice: This machine, which is registered on our books No. ...., is licensed by us for sale and use only when sold to the public at a price not less than $....... No license is granted to use this machine when sold at a less price. Any sale or use of this machine when sold in violation of this condition will be considered as an infringement of our U. S. patents under which this machine and records used in connection therewith are constructed, and all parties so selling or using this machine contrary to the terms of this license will be treated as infringers of said patents, and will render themselves liable to suit and damages. This license is good only so long as this label and the above-noted registered number remain upon the machine, and erasures, or removal of this label will be construed as a violation of the license. A purchase is an acceptance of these conditions. All rights revert to the undersigned in the event of any violation. Victor Talking Machine Company."[6]

The court, on suit being brought by the Victor company, held that this company, in effect, had said to the jobber: "'We are unwilling to part with the whole of our monopoly. There are no terms on which we will give you an unrestricted right to deal in our machines. However, if you choose to pay our price for a limited right, we will place our machines in your hands to be sold by you or by dealers under you to the public at not less than $25 each'—and that the jobber explicitly accepted this offer. It is axiomatic in all departments of law that unless the quality of innocence intervenes, the title of the purchaser is no better than his seller's."[7] The decision, in effect, held that the patentee parted with the title to the concrete embodiment of his invention, receiving the full price for it, but that, under his patent, by means of the label or notice affixed to the article, he licensed the purchaser of that article to sell it at not less than the prescribed price.

The court declared that The Fair, having knowledge of the

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[6] *Ibid.*, p. 424.

[7] *Ibid.*, p. 427.

"conditions," was an infringer. Many other decisions of the lower courts agree with the two phonograph cases presented.[8] All of them, in effect, announced the right of the patentee to prescribe by contract or notice or both the re-sale price. Any one who knowingly disregarded the provisions of the contract or the warning of the notice became an infringer.

New Jersey Patent Co. v. Weinberg. In this case the court held that the restrictions as to price applied to second-hand patented goods. Weinberg purchased phonograph records from users who had tired of them. The jobber had purchased the records from the patentee; the retailer, from the jobber; and the user, from the retailer. Nevertheless, the court maintained that the records were still subject to patent rights.[9]

The actual and potential control over re-sale prices which these decisions gave may be appreciated by considering the number of United States patents and the comparative ease with which they may be secured. Design patents furnished the best illustration of this situation. They were issued for 3½, 7, and 14 years, and a new design could be taken out every year. A manufacturer of silverware, for example, could enjoy a perpetual price monopoly by changing the pattern or configuration as required in order to keep alive one or more design patents.[10]

Sanatogen Case. The Supreme Court has passed upon several cases involving the right of the patentee to dictate the re-sale prices of his products.[11] In the Sanatogen case[12] the

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[8] A list of these cases appears in Appendix V.

[9] Fed. Rep. Advance Sheets, March 2, 1911 (Vol. 183, p. 588). A rehearing, it seems, was granted defendant, as the case does not appear in the bound volume. See Oldfield Hearings of 1912, No. 23, p. 11; and 6 Ill. Law Review 357, 364.

[10] Oldfield Hearings of 1912, No. 23, p. 17.

[11] Also the Supreme Court and other tribunals have considered the legality of re-sale price maintenance as applied to trade-marked and copyrighted goods. In Dr. Miles Medical Company v. Park, 220 U. S. 373, the Supreme Court held that the Miles company could not legally establish the re-sale prices of its trade-marked medicine through a system of contracts and notices; in the "Garst" cases the court of Massachusetts considered similar facts and rendered similar decisions. Garst v. Harris, 177 Mass. 72; Garst v. Hall and Lyon, 179 Mass. 588; Garst v. Charles, 187 Mass. 144. In Bobbs-Merrill Company v. Straus, 210 U. S. 339, 1908, the Supreme Court held that the owner of a copyright on a book did

Supreme Court, in May, 1913, invalidated the printed restriction as to the re-sale price. The complainant made and sold a patented drug called Sanatogen. Each container bore the name Sanatogen, the inscription "Patented in U. S. A., No. 601,995," and the following notice:

> "Notice to the Retailer: This size package of Sanatogen is licensed by us for sale and use at a price not less than one dollar. Any sale in violation of this condition, or use when so sold, will constitute an infringement of our patent No. 601,995, under which Sanatogen is manufactured, and all persons so selling or using packages or contents will be liable to injunction and damages. A purchase is an acceptance of this condition. All rights revert to the undersigned in the event of violation. The Bauer Chemical Company."[13]

Accordingly, when O'Donnell, a druggist in Washington, D. C., advertised and sold original packages of Sanatogen at less than the prescribed price, the complainant brought suit for infringement. The lower court (Court of Appeals of the District of Columbia) dismissed the bill; the complainant appealed to the Supreme Court. Other vendors of patented articles—the Victor Talking Machine Company, Waltham Watch Company, and the Gillette Safety Razor Company—who likewise maintained the re-sale prices of their products by means of the printed notice, joined the complainant in upholding the practice. The court, by a five to four decision (the four dissenting judges were the ones who handed down the majority opinion in Henry v. Dick, 224 U. S. 1) decided that O'Donnell did not infringe the complainant's patent.

not have the legal right under the copyright law to fix by notice the re-sale prices of copies of the book. This was the first decision of the Supreme Court denying the right to maintain re-sale prices. A similar decision resulted in Straus v. American Publishers' Association, 231 U. S. 222, an excerpt from which follows: "So, in the present case, it cannot be successfully contended that the monopoly of a copyright is in this respect any more extensive than that secured under the patent law. No more than the patent statute was the copyright act intended to authorize agreements in unlawful restraint of trade and tending to monopoly, in violation of the specific terms of the Sherman law, which is broadly designed to reach all combinations in unlawful restraint of trade and tending because of the agreements or combinations entered into, to build up and perpetuate monopolies." *Ibid.*, 234-235.

[12] Bauer v. O'Donnell, 229 U. S. 1.

[13] *Ibid.*, pp. 8-9.

The issue was stated as follows: "The question, therefore, now before this court for judicial determination, is: May a patentee by notice limit the price at which future retail sales of the patented article may be made, such article being in the hands of a retailer by purchase from a jobber who has paid . . . the full price asked for the article sold?"[14]

The argument of the complainant that a notice appeared on each package of Sanatogen stating that "This size package of Sanatogen is licensed by us for sale and use at a price not less than one dollar ($1)," did not receive a sympathetic response from the court, as the following quotation shows:

"The jobber from whom the appellee purchased had previously bought, at a price which must be deemed to have been satisfactory, the packages of Sanatogen afterwards sold to the appellee. The patentee had no interest in the proceeds of the subsequent sale, no right to any royalty thereon, or to a participation in the profits thereof. The packages were sold with as full and complete title as any article could have been sold in the open market excepting only the attempt to limit the sale or use when sold for not less than $1. In other words, the title transferred was full and complete, with an attempt to reserve the right to fix the price at which subsequent sales could be made; . . . to call the sale a license to use is a mere play upon words. . . . The appellee and the jobbers from whom he purchased were neither the agents nor the licensees of the patentee."[15]

"The right to vend conferred by the patent law has been exercised, and the added restriction is beyond the protection and purpose of the act. This being so, the case is brought within that line of cases in which this court from the beginning has held that a patentee who has parted with a patented machine by passing title to a purchaser has placed the article beyond the limits of the monopoly secured by the patent act."[16]

Subsequently, the Supreme Court referred in this manner to its decision in the Sanatogen case: "In other words, the decision was that a patentee could not use and exhaust the right to sell, as to which a monopoly was given him by the patent law, and yet by conditions and stipulations continue that law in effect so as to make it govern things which by his voluntary act were beyond its scope."[17]

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[14] Bauer v. O'Donnell, 229 U. S. 11.

[15] *Ibid.*, pp. 16-17.

[16] *Ibid.*, p. 17.

What is the distinction between this opinion and the decisions of the lower courts relating to the same subject; namely, the attempt of a patentee to control the re-sale price of his patented good? In the phonograph and other cases, the lower courts stated that the patentee, who has the exclusive right to vend his product, agreed to part with it if the purchasers would maintain the re-sale price, and that the sale was conditional and incomplete. On the other hand, the Supreme Court in the Sanatogen case held that the patentee received full consideration for his commodity, that the title passed to the dealer, and that the sale was unconditional and complete. Its decision meant then that, except for the monopolistic rights granted by the patent, the same legal principles apply to the marketing of both patented and unpatented articles.[18]

It is interesting to note that the Bauer Chemical Company, the manufacturer of Sanatogen, has tried subsequently to circumvent this decision. A vague but perhaps effective "notice" appears on the recent cartons containing Formamint, viz.: "Formamint is manufactured and sold under U. S. letters patent. The minimum retail price in U. S. A. for this package is 60 cents."

Straus v. Victor Talking Machine Company. The Supreme Court affirmed its opinion in the Sanatogen case by denying to the Victor Talking Machine Company the right to fix re-sale prices.[19] According to the facts as set forth by the Supreme Court, the Victor company employed a "License Notice" and a "License Contract" in disposing of its machines.

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[17] Boston Store v. American Graphophone Co., 246 U. S. 8, 23.

[18] Hearings before the House Committee on the Judiciary, 63rd Cong., 2nd Sess., Trust Legislation, Serial 7, Vol. 3, p. 1406.

[19] 243 U. S. 490. A district court had decided adversely to the Victor company; the decision was reversed by a Circuit Court of Appeals, 230 Fed. Rep. 449. The case was then carried to the Supreme Court for review on certiorari.

The "License Notice," quoting the court, "declares that the machine to which it is attached is manufactured under patents, is licensed for the term of the patent under which it is licensed having the longest time to run, and may be used only with sound records, sound boxes, and needles manufactured by the plaintiff; that only the right to use the machine 'for demonstrating purposes' is granted to 'distributors' (wholesale dealers), but that these 'distributors' may assign a like right 'to the public' or to 'regularly licensed Victor dealers' (retailers) 'at the dealers' regular discount royalty'; that the 'dealers' may convey the 'license to use the machine' only when a 'royalty' of not less than $200 shall have been paid, and upon the 'consideration' that all of the conditions of the 'license' shall have been observed; that the title to the machine shall remain in the plaintiff, which shall have the right to repossess it upon breach of any of the conditions of the notice by paying to the user the amount paid by him less five per cent for each year that the machine has been used. The notice in terms reserves the right to the plaintiff to inspect, test, and repair the machine at all times, and to instruct the user in its use, 'but it assumes no obligation to do so'; it provides 'that any excessive use, or violation of the conditions, shall be an infringement of the plaintiff's patent'; and that any erasure or removal of the notice will be considered as a violation of the license. Finally, it provides that at the expiration of the patent 'under which it is licensed' having the longest time to run, the machine shall become the property of the licensee provided all the conditions recited in the notice shall have been complied with, and the acceptance of the machine is declared to be 'an acceptance of these conditions.' "[20] The License Contract was between the Victor company and its dealers, and the terms were practically the same as those contained in the License Notice.

Straus, connected with a mercantile establishment in New York City, was charged by the Victor company with inducing its dealers to violate the license contract by buying Victor machines from them at "less than the prices stated in the 'License Notice,' " and with selling these machines to the public

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[20] 243 U. S. 494-495.

"at much less than the price stated in the notice affixed to each machine." The court declared that "whatever rights the plaintiff (Victor) has against the defendants (Straus) must be derived from the 'License Notice' attached to each machine, for no contract rights existed between them, the defendants being only 'members of the unlicensed general public'; and that the sole act of infringement charged against the defendants is that they exceeded the terms of the license notice by obtaining machines from the plaintiff's wholesale or retail agents, and by selling them at less than the price fixed by the plaintiff." [21]

The court concluded that the purpose of the License Notice was not to protect the patents but to dictate the re-sale price.

"It thus becomes clear," the court stated, "that this 'License Notice' is not intended as a security for any further payment upon the machine, for the full price, called a 'royalty,' was paid before the plaintiff parted with the possession of it; that it is not to be used as a basis for tracing and keeping the plaintiff informed as to the condition or use of the machine, for no report of any character is required from the 'ultimate user' after he has paid the stipulated price; that, notwithstanding its apparently studied avoidance of the use of the word 'sale' and its frequent reference to the word 'use,' the most obvious requirements for securing a bona fide enforcement of the restrictions of the notice as to 'use' are omitted; and that, even by its own terms, the title to the machines ultimately vests in the 'ultimate users,' without further payment or action on their part, except patiently waiting for patents to expire on inventions which, so far as this notice shows, may or may not be incorporated in the machine." [22]

"Convinced as we are that the purpose and effect of this 'License Notice' of plaintiff, considered as a part of its scheme for marketing its product, is not to secure to the plaintiff any use of its machines, and as is contemplated by the patent statutes, but that its real and poorly concealed purpose is to restrict the price of them, after the plaintiff had been paid for them and after they have passed into the possession of dealers and of the public, we conclude that it falls within the principles of Bauer v. O'Donnell; that it is, therefore, invalid."[23]

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[21] *Ibid.*, pp. 496-497.

[22] *Ibid.*, p. 500.

Boston Store v. American Graphophone Company. This decision of the Supreme Court, the third one with respect to the right of a patentee to restrict the re-sale price of his product, agreed with its opinions in the Sanatogen, and Straus v. Victor cases.[24] The American Graphophone Company sold its patented products to the dealer with the stipulation in the contract that they must be re-sold at prices fixed by this company. It brought suit against the Boston Store for violation of this contract.

The Supreme Court found the issue involved here to be like that in the Sanatogen, Straus v. Victor, and projecting machine cases, all of which it reviewed before rendering its decision. It stated: "Applying the cases thus reviewed, there can be no doubt that the alleged price-fixing contract disclosed in the certificate was contrary to the general law and void. There can be equally no doubt that the power to make it in derogation of the general law was not within the monopoly conferred by the patent law, and that the attempt to enforce its apparent obligations under the guise of a patent infringement was not embraced within the remedies given for the protection of the rights which the patent law conferred."[25]

The graphophone company had argued that the wording, etc., of its contract and notice was important, that it differentiated its scheme of price maintenance from other attempts of patent-owners to dictate re-sale prices. The Supreme Court met this argument in the following manner: "It becomes, we think, unnecessary to do more than say that we are of opinion that the attempt in argument to distinguish the cases by the assumption that they rested upon a mere question of the form of notice on the patented article, or the right to contract solely by reference to such notice, is devoid of merit, since the argument disregards the fundamental ground upon which, as we have seen, the decided cases (Sanatogen, Straus v. Victor, etc.) must rest."[26]

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[23] 243 U. S. 501.

[24] 246 U. S. 8, 23-24.

[25] *Ibid.*, p. 25.

[26] *Ibid.*, p. 25.

The court gave a negative answer to the definite question, "Can a patentee, in connection with the act of delivering his patented article to another for a gross consideration then received, lawfully reserve by contract a part of his monopoly right to sell?"[27]

Folding Bed Case. The Supreme Court apparently anticipated, in 1895, the three decisions just described.[28] It stated: "We think it follows that one who buys patented articles of manufacture from one authorized to sell them becomes possessed of an absolute property in such articles, unrestricted in time or place. Whether a patentee may protect himself and his assignees by special contracts brought home to the purchasers, is not a question before us, and upon which we express no opinion. It is, however, obvious that such a question would arise as a question of contract, and not as one under the inherent meaning and effect of the patent laws.

"The conclusion reached does not deprive a patentee of his just rights, because no article can be unfettered from the claim of his monopoly without paying its tribute. The inconvenience and annoyance to the public that an opposite conclusion would occasion are too obvious to require illustration."

Criticism. The Supreme Court, therefore, in several decisions has denied the right to dictate the re-sale prices of patented (also unpatented) goods by contract, notice, or otherwise. It never passed upon the question, however, until 1913 in the Sanatogen case. Prior to that the lower courts upheld the right, and the exercise of it prevailed at least twenty years. It was a species of unfair competition in that it tended to lessen competition between dealers and therefore to prevent the working out of the process by which the most efficient concerns survive.

LITIGATION IN THE COURTS

Amount and Expense of Litigation. The amount and expense of patent litigation serves as a handmaid to those who would oppress others in order to attain their designs. The same patent may be the subject of litigation in one or more of the nine circuits.[29] Such a situation means years of litigation and an opportunity for oppression by the wealthy and powerful corporation.[30] Furthermore, "the proceeding in court is so expensive, and there are such delays attendant upon it, that it is not a question of being right; it is a question of having enough money to wear out the other man." [31]

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[27] *Ibid.*, p. 27.

[28] Keeler v. Standard Folding Bed Co., 157 U. S. 659, 666-667.

An eminent inventor has described the situation in an eloquent manner: "As to wealthy corporations, it has become obvious that the skillful handling of patent cases places them at an untold advantage against their smaller competitors. For them, a well-organized patent department is a reliable machine, where money is the lubricant. This machine, in its slow but sure grinding way, can reduce to pulp any of the smaller competitors. For large corporations the maintenance of such a machine with a staff of lawyers and experts, is merely a small side expense. By its aid they can bluff their weaker competitors into quick submission. If this is not successful, they can drag out a patent suit indefinitely, until the weak opponent, unable to bear the ever-increasing expenses, collapses and withdraws.

"These tactics are well-known, and have been played successfully, whether it was to uphold the worthless patent or to obtain immunity in case of infringement. In every case the wealthy corporation is sure of the outcome of the game, and plays, 'Heads I win, tails you lose.' " [32]

This inequality before the law arises whenever one litigant is strong and the other is weak, financially; and in the case of patent suits it is especially prevalent, for most of the judges, versed in law and not in mechanics, chemistry, etc., must lean largely upon the testimony of experts, and the arguments of patent lawyers.

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[29] Nolan Hearings of 1919, p. 70.

[30] Oldfield Report of 1912, p. 23.

[31] Oldfield Hearings of 1912, No. 18, p. 13.

[32] *Ibid.*, No. 4, p. 34.

Threats of Infringement Suits. Threats of infringement suits are made in bad faith as attested by the failure or refusal, in most instances, to institute legal proceedings to determine the question of infringement. They usually involve an element of false claiming with respect to the patent and therefore a fear that the infringement suit would be lost. The claims of the patent may include what is already public property. Some concerns apparently have planned and launched campaigns of threats of infringement suits against rivals and their customers. To further such a scheme, some of them have secured vague patents which would seem to furnish a legal basis for such tactics and even for the collection of royalties. The mere name of "patent," even though it relates to a trivial invention and an invalid patent, is of value to its holder, because people prefer not to come into conflict with it. The owner of the Selden patent exacted tribute several years from automobile manufacturers before it was held invalid. Writers have applied various epithets to patents of this sort, such as scarecrow, bluffing, blackmail, etc.

These threats of infringement suits are usually regarded by the courts as unfair and illegal. The Federal Trade Commission has compiled excellent and representative decisions, both American and English, relating to unfair competition at the common law; a portion of them pertain to the "Intimidation of competitor's customers by threats of infringement suits." [33]

Under this heading the Commission states: "It has been a somewhat common practice for manufacturers of patented articles to prevent the sale of a competing article by circulating broadcast threats to sue for infringement all dealers handling these articles. Such a campaign against a competitor is usually begun by circularizing the trade generally, and in particular the customers of the competitor whose business it is sought to injure or destroy, stating that the competitor's article is an infringement of the writer's patent and that suits will be instituted against all dealers handling the infringing article; and letters of this description are frequently supplemented by oral statements of travelling salesmen."[34]

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[33] Memorandum on *Unfair Competition at the Common Law,* 1916, pp. 141-149; also, see pp. 285 and 286.

A circuit court in Dittgen v. Racine Paper Goods Company[35] described this kind of competition as follows: "If such a campaign be skillfully conducted for a series of years, as seems to have been the case here, the competitor is helpless. His orders are countermanded, old customers desert him through fear of litigation, or demand bond of indemnity as a condition for placing orders. His business is melting away. Everywhere the trade is apprehensive of 'peremptory measures' if they buy goods of an infringer. He appeals to the patentee to bring suit and offers to enter an appearance in any court having jurisdiction, but all to no purpose. Customers will not listen to his explanations or denials, and unless he can get relief in a court of equity his business . . . may be entirely ruined by a competition which is malicious and unfair." The court concluded that the defendant had been guilty of unfair competition and had maliciously diverted and injured the trade of the complainant.

The Circuit Court of Appeals, in passing upon the same case, declared: "Undoubtedly one claiming that his patent is being infringed should take steps to advise the public of his rights as provided by statute, provided, however, that if it is made to appear that under pretense of so doing he is pursuing a course which is calculated to unnecessarily injure another's business, and with the plain intention of so doing, his conduct will be deemed malicious, and he brings himself within the rule of law obtaining in cases of unfair competition in trade, and subject to injunction."[36]

Another case of unfair competition involved the National Harrow Company, previously described. This company maintained that the harrows manufactured by Adriance, Platt and

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[34] Memorandum on *Unfair Competition at the Common Law,* 1916, p. 141.

[35] 164 Fed. Rep. 85, 89; C. C., 1908. Also *Unfair Competition at the Common Law,* p. 141.

[36] 171 Fed. Rep. 631, 633, 1909, and *Unfair Competition at the Common Law,* p. 142; a decision of like tenor based on similar facts is Electric Renovator Mfg. Co. v. Vacuum Cleaner Co., 189 Fed. Rep. 754.

Company, a competitor, infringed its patents, and suggested that the competitor become one of its licensees. The Adriance company, refusing to do this, invited the National company to test out the charge of infringement in the courts; the latter declined but stated that it proposed to prevent the sale of the former's harrows in its own way. The National company then sent out circulars and letters to the customers of the Adriance company, claiming that the latter's harrows infringed the patents of the National company and threatening to sue dealers who handled them, for infringement. The Adriance company brought suit to restrain the distribution of these circulars and letters and was granted an injunction by a Circuit Court of Appeals.[37] The court clearly distinguished between proper warnings and legal proceedings for the defense of a patent, and improper and unlawful tactics, as the following shows:

"Undoubtedly the owner of a patent is acting within his rights in notifying infringers of his claims and threatening them with litigation if they continue to disregard them; nor does he transcend his rights when, the infringer being a manufacturer, he sends such notices to the manufacturer's customers, if he does so in good faith, believing his claims to be valid, and in an honest effort to protect them from invasion. The question whether the patent owner is acting in good faith in advertising his claims to the manufacturer's customers by circulars or letters can seldom be determined from the contents of the communication alone, and, like all questions of intent, must generally be determined by the extrinsic facts. . . .

"As ordinarily the patent owner would be prompt and zealous to assert his claims, if he halts and purposely procrastinates, and attempts to effect by threats and manifestoes that which he can compel by the strong hand of the law, a strong inference arises that he has not any real confidence in his pretensions. This inference becomes irresistible if he refuses to bring suit during a considerable period of time when the alleged infringement is open, notorious, and defiant, and so extensive as to threaten destruction to his alleged exclusive rights."[38]

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[37] *Unfair Competition at the Common Law,* p. 14.

However, letters to the customers of a competitor charged with infringement, if "sent out in good faith for the purpose of protecting the sender from an infringement,"[39] do not necessarily constitute unfair competition. A test of good faith is, as already shown, the institution of legal proceedings to determine the infringement. This view is borne out by several decisions.[40]

The National Cash Register Company engaged in various methods of unfair competition, one of which consisted of threats to bring infringement suits. In United States v. Patterson, the District Court asked, "Can the patentee, during the 17 years, sally forth with torch and ax, commit acts of unfair competition, and, with or without establishing his patent, destroy those industries, claiming to be the owner of a monopoly as of right, when in fact the monopoly does not exist?"[41] The court answered, "A part of the patent right is the expressly granted power to bring suits to exclude all infringers. The patentee has no sanction under the patent laws to exclude infringers in any other way."[42]

The Federal Trade Commission has issued several complaints involving this kind of unfair competition. It ordered the National Binding Company to cease "stifling and suppressing competition . . . by threats of suit for infringement against users of tape on machines other than the National binding machine."[43] The Commission also directed the Nulomoline Company to cease "using an unfair method of competition in the sale of inverted sugar sirup, viz., claiming ownership of the exclusive right to employ said process of manufacture, said exclusive right being founded upon a patent issued on the basis of false representations made by respondent; threatening to sue competitors for infringement of patents; threatening to sue dealers handling sugar manufactured by competitors of respondent by means of inverted process."[44]

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[38] Adriance, Platt and Company v. National Harrow Company, 121 Fed. Rep. 827, 829-830, C. C. A., 1903. Also *Unfair Competition at the Common Law,* pp. 143-145.

[39] *Unfair Competition at the Common Law,* p. 146.

[40] For example: United Electric Company v. Creamery Package Co., 203 Fed. Rep. 53, D. C., 1913; and Clip Bar Mfg. Co. v. Steel Protected Concrete Co., 209 Fed. Rep. 874, D. C., 1913. Also, see *Unfair Competition at the Common Law,* pp. 146-148.

[41] 205 Fed. Rep. 292, 297. Also, see 201 Fed. Rep. 697; 222 Fed. Rep. 599; and Hearings before the Senate Committee on Interstate Commerce, 63rd Cong., 2nd Sess., Vol. II, pp. 1340-1341.

[42] *Ibid.,* p. 297. A part of the indictment against the New Departure Manufacturing Company, consisted of threatening with prosecution dealers in the commodity of a competitor. United States v. New Departure Manufacturing Company, 204 Fed. Rep. 107, 110.

Malicious Infringement Suits. Infringement suits may not be brought in good faith. A powerful corporation, for example, may institute proceedings in order to enmesh a small competitor in a network of expensive and vexatious litigation, with the hope and expectation of weakening him, or of acquiring his patent rights, or perhaps of buying his business at a low figure. As one inventor has said, "There is no present requirement that a suit under a patent be brought in good faith. It not infrequently happens that the owner of a patent brings suit against a perfectly innocent defendant, puts him to expense, worry, and general harassment in his own defense, and injures his business; and it is finally found by the court, when the case is concluded, that the defendant has not infringed any valid claim of the patent sued upon. Under the present system, as far as I know, the defendant can recover nothing but his court costs, which represent a very small portion of the expense to which he has been put in his defense."[45]

Mr. Blair, an erstwhile competitor of the Eastman Kodak Company, stated: "In my opinion the Eastman company brought the patent suits against me and threatened to bring them where they had no grounds for bringing them. . . . I am forced to add that the method of the Eastman company in bringing suits against me, influenced me in selling out the business."[46] According to the government's brief in the Eastman litigation, "the only patent suit that the Eastman Kodak Company apparently ever won involved the Eastman-Walker roll holder." . . .[47] The National Cash Register Company brought infringement suits against other manufacturers of cash registers and the purchasers of their machines, apparently for the purpose of intimidating them. Other concerns have made a practice of influencing business unfairly by suing on their patents, not only the manufacturer of an alleged infringing device, but also the users of the device.[48]

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[43] Annual Report of the F. T. C., 1918, p. 75, complaint No. 10, instituted Dec. 31, 1917.

[44] *Ibid.*, 1919, p. 60, complaint No. 29, instituted Dec. 18, 1917; also, see *Ibid.*, 1921, p. 149, complaints Nos. 126 and 224.

[45] Oldfield Hearings of 1912, No. 15, p. 6.

Intentional Infringement of Patents. The intentional infringement of patents arises from a desire to harass and intimidate and weaken a competitor. A recent commissioner of patents stated, "When he [the patentee] gets out his patent, if it is a good thing and he does not succeed in making arrangements with people who will take it up satisfactorily, he is face to face with an arrangement which is frequently carried on by concerns that are created merely for the purpose of infringement, and with the determination to go into the hands of a receiver if they are brought to book."[49] The president of the Edison company in 1912 stated, "Every advantage appears to be given the infringer, and there are in this country corporations whose well-recognized policy is to infringe patents without hesitation and depend upon the opportunities afforded by the present practice to escape any liabilities. In other cases infringements are committed by irresponsible persons who, when finally brought to book, either disappear or are found to have nothing that can be reached. Even when a patentee, after years of effort and the expenditure of thousands of dollars, succeeds in securing an injunction against the infringer, yet with the present rules for determining profits and damages a substantial recovery cannot be secured in one case in a thousand."[50] A lawyer said before the Oldfield Committee that the items of expense and profit are often manipulated and concealed so as to put it beyond the power of the patent owner to prove profits or damages.[51]

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[46] U. S. v. Eastman Kodak Co., Brief for the U. S., Part I, p. 15.

[47] *Ibid.*, p. 155.

[48] Oldfield Hearings of 1914, Part 7, p. 142.

[49] Oldfield Hearings of 1912, No. 10, p. 27.

[50] *Ibid.*, No. 10, p. 40.

INTERFERENCE PROCEEDINGS IN THE PATENT OFFICE

Amount and Expense of Interference Proceedings. According to our patent laws a patent is granted to the first or prior inventor. If two or more applications for the same invention are pending in the Patent Office at the same time, an "interference" is declared for the purpose of ascertaining to whom the patent should be issued. About one per cent of the patents issued have been in interference. The procedure is usually complicated, prolonged, and expensive. It is judicial and technical in nature and therefore requires the employment of patent lawyers and the testimony of skilled experts. Many appeals are possible. The examiner of interferences gives the first decision and then appeals may be taken successively to the examiner in chief, the commissioner of patents, and the Court of Appeals of the District of Columbia. The Federal courts offer other possibilities for the continuation of the litigation. Another and subsequent interference may necessitate the repetition of similar proceedings.[52]

The expensiveness of interference proceedings is indicated by the experiences of individual inventors. One wealthy and individual inventor spent $60,000 in six years in a single interference case.[53] Another inventor stated, "I presume I have spent not less than $75,000 of my own money in fighting interference proceedings in the Patent Office, in every one of which I was first in the Patent Office, and in each case the other man was not only second in the Patent Office, but has never alleged that he invented the device before the time that I filed my application. His alleged date of conception in these various cases was in all of them subsequent to my date of filing, and yet I have been forced to spend enormous sums of money in these interference proceedings." [54]

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[51] *Ibid.,* No. 16, p. 26.

[52] See Edelman, *Inventions and Patents,* pp. 117-121.

[53] Oldfield Hearings of 1912, No. 4, p. 30.

[54] *Ibid.,* No. 3, p. 20.

The complexity and delay and expense of interference proceedings have been eloquently described by the Court of Appeals of the District of Columbia: "From the simple and summary mode first adopted for determining the question of priority of invention, that proceeding, by system of Patent Office rules, has grown to be a veritable old man of the sea, and the unfortunate inventor who becomes involved therein is a second Sinbad the Sailor. It is known to all who are familiar with the practice in interference proceedings that by motions, petitions, and appeals of every conceivable character that the ingenuity of the skilled attorney can devise, interferences can be and are prolonged for years, to the injury of the public, and often to the financial ruin of the parties." [55]

In interference proceedings, however they arise, the poor inventor is at a great disadvantage. The history of them shows that whenever a weak opponent confronts a rich opponent the former ordinarily compromises and settles his case, and the papers are worded in some way or other by mutual consent to the advantage of the latter.[56] The poor inventor, who cannot withstand the financial strain of interference proceedings, chooses the lesser of two evils.

"*Dragnet Applications.* Many of the interferences are due to "dragnet" applications which serve the purpose of "scooping" up subsequent inventions. One inventor has stated that our interference system "works very well to the advantage of large corporations who can afford to keep cases pending indefinitely and use them as a dragnet for interference and for saddling every interference case upon a weak opponent." [57] The wealthy corporation may purposely delay the granting of a patent to it so as to entangle a rival but poor inventor in expensive interference proceedings, with the hope and expectation of forcing him either to abandon his invention or to sell it at a nominal price. Commissioner Moore, in 1912, indicated before the Committee on Patents of the House of Representatives the extent of dragnet cases: "I might also state the fact that there are to-day held in the office thousands of those dragnet cases. We know it, and every man in the patent business knows it. And these men who go out of the [Patent] Office and go into the large concerns are put in the shops to write specifications. They do not take out patents unless some rival concern files an application. The United Shoe Machinery Company to-day has applications pending that have been in the office eight or ten years. There is a printed list of them, and that is only one corporation." [58]

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[55] Report of the Investigation of the United States Patent Office, 1912, p. 44.

[56] Oldfield Hearings of 1912, No. 4, p. 30.

[57] *Ibid.*, No. 4, pp. 29-30.

FORCED VALIDITY OF PATENTS

The forced validity of patents means an unwarranted attempt to uphold the legality of a patent. By means of contracts the Eastman Kodak Company tried to insure the validity of its patents. For example, two individuals, Houston and Blair by name, agreed to acknowledge the validity of the two patents which Houston assigned to Eastman. It should be added that Houston was the inventor and Blair a former officer of another camera company.[59] Moreover, this company was a party to mutual agreements to cancel infringement suits and thus preserve the patent rights of all concerned. The Columbia Phonograph Company required its dealers to admit the validity of its patents.[60] The licensees of the United Shoe Machinery Company agreed not to deny the validity of the patents of this company.[61] According to the terms of the sub-agency contract of the Weed Chain Tire Grip Company, in 1914, "the agent admits and concedes the validity of the patents of the Weed Chain Tire Grip Company under which the products covered by this contract are manufactured and sold, and will not at any time or under any circumstances contest the validity of said patent."[62]

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[58] Hearings before the House Committee on Patents, Patent Office Certificates of Correction, Jan. 31, 1912, p. 66. Other references to interferences as unfair competition may be found in Macomber, "Patents and Industrial Progress," *North American Review*, June, 1910; Kaempffert, "Our Defective Patent System," *The Outlook*, July 6, 1912, p. 548; Oldfield Hearings of 1912, No. 15, p. 7, No. 25, pp. 7-8; and Avram, *Patenting and Promoting Inventions*, pp. 68-69.

[59] United States v. Eastman Kodak Co., Vol. 5, Govt. Ex. 5, Article XVII, p. 2024.

[60] Oldfield Hearings of 1912, No. 8, pp. 9, 24.

[61] Oldfield Hearings of 1914, Part 8, p. 150.

FORCED ROYALTIES

A concern may require the payment of royalties on articles not covered by any of its patents in order to discourage the manufacture and sale of the products of competitors. The Eastman Kodak Company, for example, received such royalties on cameras that did not involve any of its patents. In a license agreement of March 4, 1898, between the Eastman company and Anthony and Company, the latter agreed to pay to the former a royalty of 7½ per cent of the retail list price upon cameras embodying certain patents controlled by the Eastman company, and also upon those which it might procure from persons not licensed under the Eastman patents.[63]

FALSE MARKING

To recover damages from an infringer, the patentee must prove that he marked the patented article as "Patented," or that the infringer had actual notice that the patent existed. Designating an unpatented article as "patented" constitutes false marking and is punishable by a fine of not less than $100. Some articles bear the words, "Reg. in U. S. Pat. Office," which indicates the registration of trade marks in the Patent Office. The use of such words for this purpose, though not unlawful, may lead to the supposition that the articles on which they appear are patented.

A manufacturer of complicated machinery may not affix the numbers of his patents to his machines. The explanation of this policy, in many instances, is the attempt to prevent competitors from ascertaining which ones of his numerous patents must be avoided in making a competing product. Furthermore, the patentee is under no legal obligation to distinguish the patented feature, or to indicate whether the patent covers a basic invention or a slight improvement. The effect of this, especially in the case of a complex machine, is to make it uncertain whether or not any part of the patented article may be lawfully copied.

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[62] Hearings before the House Committee on the Judiciary, 63rd Cong., 2nd Sess., Trust Legislation, Vol. III, pp. 1284-1285.

[63] U. S. v. Eastman Kodak Co., Vol. 7, p. 3481, Defendant's Exhibit 135.

The expressions, "Patent Applied For" and "Patent Pending," have been exploited. In this connection, a recent commissioner of patents stated, "It frequently happens that devices for which no application for patent has been made are marked 'patent applied for,' and also that to devices for which application for patent has been made and the application refused and finally abandoned, the same legend is still applied. My attention has also recently been called to the fact that certain attorneys who are employed by applicants to make a preliminary search to determine whether or not a device is patentable will advise their clients that in their opinion the device is not patentable, but that if they desire protection they will file their applications in order that they may mark the articles 'patent applied for,' which they advise them will afford almost the same protection as if the articles were actually patented. This, of course, is clearly an intent to deceive the public, since the applicant, acting on the advice of the attorney, has reason to believe that he cannot obtain a patent upon the article which he marks 'patent applied for.' Applications of this character are, of course, held pending in the Patent Office as long as possible, in order to afford the applicant as 'great a measure of protection as possible.' "[64]

Moreover, to affix on a patented commodity the dates of all its patents, both expired and unexpired, is a common practice. The apparent object of this is to give the appearance of a legal protection which really does not exist. Many patent dates give a cumulative effect and suggest to the public, which is generally uninformed concerning the duration, etc., of a patent, the comprehensiveness of the patentee's monopoly. Some of the dates may refer to expired basic patents; others, to unexpired and insignificant patents. The word "patented" may be legally affixed to an article after the patent has expired, since the public is presumed to know, from the date of the patent that it has expired. For example, the Singer Manufacturing Company affixed upon its sewing machines the inscriptions: "Patented, September 10, 1846; May 8, 1849; November 13, 1850; August 4, 1851; August 12, 1851; April 11, 1854; May 30, 1854; November 21, 1854; December 19, 1854; May 29, 1855; and October 9, 1855." These patents had expired, a fact interpreted by the court in the light of the law which forbids the false marking of unpatented articles. The court stated that, to establish the offense, it must appear that the Singer company affixed a stamp indicating a subsisting patent on its machines. The tribunal concluded that the dates of these patents clearly showed that they had expired; therefore, that their appearance upon the machine constituted no violation of the statute.[65]

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[64] Oldfield Hearings of 1912, No. 1, p. 10.

PIRACY

A patentee may be deprived of the value of his invention by other patents that either obstruct or circumvent his invention. The resort to "obstructive" or "dog-in-the-manger" patents may render the invention of a competitor unfit to use.[66] Thus, an individual wrote, in 1914, to the Senate Committee on Interstate Commerce, "I have in mind now the case of a corporation which maintains a corps of patent experts and mechanics who are employed for the purpose of studying machines and devices produced by its competitors, and then, before such machines and devices can be worked out and improved to the point of completion, they are 'covered up' by numerous applications for patents, which make it difficult, if not impossible, for the competitors to perfect and market their own devices."[67]

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[65] Wilson v. Singer Manufacturing Co., 12 Fed. Rep. 57, 58-59; also see 30 Fed. Case No. 17, 836.

[66] Nolan Hearings of 1919, pp. 162-163.

[67] Hearings before the Senate Committee on Interstate Commerce, 63rd Cong., 2nd Sess., Trust Legislation, Vol. 2, p. 1078.

On the other hand, the value of a patent may be destroyed by the substitution of other inventions. The end desired may be attained by other so-called inventions which closely resemble the original invention. A considerable amount of invention is born of the predatory desire to circumvent an existing invention.[68] This situation explains the practice of the original inventor, in many instances, in taking out "alternate" or "contingent" patents, which cover departures from and modifications of the general idea.[69] One writer has stated that patent property may often be safeguarded by fortifying the approach through which that property may be attacked. Further, "the royal road to success, so far as there is one, seems clearly to lie in the direction of supplementing one patent by another and thereby cementing together into one homogeneous mass a complete system or network of protection which considered as a whole will be, during the life of the patent, substantially proof against serious attack, notwithstanding that no patent in the system may be even fairly strong when taken by itself." [70]

ECONOMIC WASTE

Unfair competition, as previously noted, tends to destroy those business units which can make and sell their goods with a minimum of the factors of production. In other words, it enables the inefficient units to survive and therefore promotes the waste of our economic resources. Moreover, activities which are unfair methods of competition represent waste. They require the time and energy of contestants, lawyers, judges, and others. In other words, they mean the withdrawal of an appreciable part of our economic resources from other fields of employment and therefore an encroachment upon our economic welfare.

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[68] *Patents,* Machinery's Reference Series, p. 3; Edelman, *Inventions and Patents,* pp. 48-50.

[69] Oldfield Hearings of 1912, No. 24, p. 7; No. 3, p. 21.

[70] Richards, *The Conditional Nature of Patent Property,* American Assn. of Inventors and Mfgrs., Washington, D. C., pp. 148-149.

CHAPTER VI

SUPPRESSION OF PATENTS

The suppression of patents is regarded as one of the greatest evils of our patent system. A large proportion of inventions are not embodied in products; their disclosure through publication of the patents thus becomes the only channel through which knowledge of their existence is obtained, and the only return to the public for the grant of legal monopolies. In this chapter the author will consider the legality of the suppression of patents, the causes and extent of the practice, and the objections to the evil in the light of the purpose of the patent laws.

Legal Right to Suppress Patents

Hoe v. Knap. A decision of the Circuit Court in Hoe v. Knap involved the non-use of patented machines due to the greater profitableness of the old machines and the expense of displacing the latter by the former. The court stated that a patentee is "bound either to use the patent himself or allow others to use it on reasonable or equitable terms."[1]

Evart Manufacturing Company v. Baldwin Cycle-chain Company. Another decision of a circuit court, in 1898, approved the doctrine that the suppression of patents is contrary to the philosophy of the patent system.[2] It declared that "it has long appeared to the court, as constituted for the hearing of this cause, that a patent for an invention which the patentee refuses to make available himself, and refuses to allow others to make useful, is not within the spirit of the provision of the constitution which assigns as a reason for securing exclusive rights to authors and inventors a desire 'to promote the progress of science and the useful arts,' and that patents so held are entitled to scant recognition at law, though necessarily to some, but to none whatever in equity. They are not, as claimed by the plaintiff, the equivalent of a highly-cultivated field, surveyed, plotted, and fenced in by the owner; but they constitute, for all useful purposes, a waste from which the public is sought to be excluded for reasons of which equity takes no cognizance."[3]

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[1] 27 Fed. Rep. 204, 212, Mar., 1886.

[2] Evart Manufacturing Company v. Baldwin Cycle-chain Company, C. C., 91 Fed. Rep. 262.

Button-fastener Case. A Circuit Court of Appeals, in 1896, rendered the first judicial decision which definitely upheld the legal right to suppress patents.[4] It stated that the patentee if he sees fit, "may reserve to himself the exclusive use of his invention or discovery. If he will neither use his device, nor permit others to use it, he has but suppressed his own. That the grant is made upon the reasonable expectation that he will either put his invention to practical use, or permit others to avail themselves of it upon reasonable terms, is doubtless true. This expectation is based alone upon the supposition that the patentee's interest will induce him to use or let others use, his invention. The public has retained no other security to enforce such expectations. A suppression can endure but for the life of a patent, and the disclosure he has made will enable all to enjoy the fruit of his genius. His title is exclusive, and so clearly within the constitutional provisions in respect of private property that he is neither bound to use his discovery himself, nor permit others to use it."[5]

But has the public retained no other security, than the self-interest of the patentee, to enforce the use of the invention? Does a disclosure in words alone insure the enjoyment of the invention after the patent expires? The reduction of the invention to practice—its embodiment in concrete articles—is also necessary.

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[3] *Ibid.,* p. 265.

[4] Heaton-Peninsular Button Fastener Co. v. Eureka Specialty Co., 77 Fed. Rep. 288.

[5] *Ibid.,* pp. 294-295.

Paper Bag Case. A decision very similar to the preceding one, except for the dissenting opinion of the lower court, was in Continental Paper Bag Company v. Eastern Paper Bag Company, known as the paper bag case. The complainant, the owner of two patents on machines for manufacturing paper bags, made and sold one of the patented machines but wilfully suppressed the patent for the other device. The suit arose from the infringement of the unused patent. One of the arguments of the defendant was that the patent had been suppressed. In the Circuit Court of Appeals two of the three judges decided that, in spite of suppression and non-use, the complainant still enjoyed the right to restrain infringement by injunction.[6] The third judge registered a strong dissenting opinion: "Notwithstanding infringement, I contend that injunction relief should not be granted because it is an infringement of a paper patent deliberately held in non-use for a wrongful purpose." [7]

Elaboration of this point brought the judge to a discussion of the patent law and public policy: "In the aspect most favorable to the plaintiff, the relief sought is injunction protection to a business or an industry built up in using a particular invention, and through acquiring and holding in deliberate non-use a competing invention by way of protection.

"It results, therefore, that a court of equity is asked not to protect from infringement the statutorily intended monopoly of the right to make, use, and vend under a particular patent, but to protect a monopoly beyond and broader than that, a monopoly in aid of the rightful statutory monopoly of the patent in use. The proposition involves the idea of a secondary monopoly maintained to stifle patent competition in the trades and industries, and thus contemplates a condition which at once contravenes the manifest purpose of the Constitution, and a monopoly of a kind and breadth and for a purpose in no sense ever contemplated by the statutory contract which safeguards the legal right to make, use, and vend under a particular patent." [8]

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[6] 150 Fed. Rep. 741, Dec., 1906.

[7] *Ibid.*, p. 744.

[8] *Ibid.*, p. 744.

The judge concerned himself with the intent and result of non-use rather than non-use *per se:* "Simple non-use is one thing. Standing alone, non-use is no efficient reason for withholding injunction. There are many reasons for non-use which, upon explanation, are cogent, but when acquiring, holding, and non-use are only explainable upon the hypothesis of a purpose to abnormally force trade into unnatural channels—a hypothesis involving an attitude which offends public policy, the conscience of equity, and the very spirit and intention of the law upon which the legal right is founded—it is quite another thing."[9]

This case, appealed to the Supreme Court, received the sanction of this tribunal; the complainant here, however, made at least a plausible justification of the non-use.[10] The court stated: "But, granting all this, it is certainly disputable that the non-use was unreasonable or that the rights of the public were involved. There was no question of a diminished supply or of increase of prices, and can it be said, as a matter of law, that a non-use was unreasonable which had for its motive the saving of the expense that would have been involved by changing the equipment of a factory from one set of machines to another? And even if the old machines could have been altered, the expense would have been considerable. As to the suggestion that competitors were excluded from the use of the new patent, we answer that such exclusion may be said to have been of the very essence of the right conferred by the patent, as it is the privilege of any owner of property to use or not use it, without question of motive."[11]

The court, it should be noticed, suggested a loop-hole to this sweeping statement by adding, "Whether, however, a case cannot arise where, regarding the situation of the parties in view of the public interest, a court of equity might be justified in withholding relief by injunction, we do not decide."[12]

Mr. Justice Harlan dissented from this opinion; he concluded that "the facts are such that the court should have declined, upon grounds of public policy, to give any relief to the plaintiff by injunction."[13]

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[9] *Ibid.*, p. 745.

[10] 210 U. S. 405, June, 1908.

[11] *Ibid.*, p. 429.

[12] *Ibid.*, p. 430.

Lock Case. A patentee may not agree to suppress his patent for the purpose of restraining trade in his patented commodity. In the lock case a circuit court, in 1909, announced: "The right of a patentee to suppress his own rests upon ordinary considerations of property right. The public has no right to compel the use of patented devices or of unpatented devices, when that is inconsistent with fundamental rules of property. When a patentee agrees, however, to restrain his own trade in the article of his own invention, not as an incident to a granting of rights, but for the purpose of enhancing his price by the removal of competitors, he is then quite outside the sphere of any right granted him by the government. . . ."

"Granting that non-use of an invention is fully within the right of the owner of a patent, it does not follow that he may by agreement bind himself to non-use, save in connection with an assignment of his letters patent. Ownership of a patent involves no obligation to use, nor does ownership of other property. Non-use ordinarily violates no law; but contracting with another, putting it in the power of another to compel one not to use is a contract in restraint of trade, designed for the purpose of suppressing competition."[14]

The Oldfield Report of 1912 declared: "The suppression of intellectual products for the preservation of the old market does not promote the progress of science and the arts. A patentee who agrees to suppress his invention is not promoting it. He is not deriving his profit from its promotion, but from manipulation of the market. It is no part of the constitutional scheme, or of the scheme of the patent laws, to secure to inventors a profit from the suppression of their creation."[15]

The foregoing judicial opinions indicate, though not unreservedly and unanimously, the right of a patentee to suppress his own patent. He is under no greater obligation to use the invention than any other property which he may have. The Supreme Court is more lenient in this respect than the lower courts. However, as pointed out in the lock case, an agreement to suppress a patent to restrain trade is illegal.

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[13] 210 U. S. 430, June, 1908.

[14] Blount Mfg. Co. v. Yale and Towne Co., 166 Fed. Rep. 555, 559, 560 (1909).

[15] Oldfield Report of 1912, p. 7, quoting Blount case, 166 Fed. Rep. 561.

CAUSES OF SUPPRESSION

The following are the chief causes of the suppression of patents: (1) demerits of the invention or patent, (2) inadequate finances, (3) incompetence of the patent owners, (4) the illegality of an unauthorized use of improvements in conjunction with patented inventions of a basic nature, (5) the expense of replacing old equipment with new inventions, and (6) the desire to secure a monopoly of a particular industry by obtaining all relevant patents. Two or more of these causes may be operative at the same time. Moreover, it should be pointed out that the suppression may be voluntary or involuntary, as the explanations of the practice suggest.

Demerits of Invention or Patent. A patent may lack sufficient merit or value for several reasons, all of which may be grouped under the two general categories of demand and supply. The invention may be unimportant—even freakish—and therefore the demand for it may be very limited or absent. Further, every invention of importance represents a growth or evolution. The article ultimately marketed is the result of many individual inventions; the best ones are incorporated in a single product while the inferior ones are abandoned. All of these inventions constitute a reserve of ideas to draw upon. The inventor has to conceive many of them as an inevitable incident in the development of the best possible article.[16] Hundreds of patents are issued every year for accomplishing a result less efficiently than the existing methods. Car couplers so delicately poised that they cannot withstand the impact of cars furnish an illustration to the point. Necessarily there is no demand for inferior inventions even though they bear the blue seal of the Patent Office. A concern engaged in manufacturing an unpatented product may refuse to buy a patent covering an improvement of it, for fear of infringement suits. There is a growing realization that a patent conveys no substantial protection until its validity is established in the courts. On the other hand, if the concern's product is patented, it may purchase a patent similar to its own, not to use it, but to avoid the likelihood of litigation. This is one of the reasons for the formation of trusts: for example, the Eastman Kodak Company and the United Shoe Machinery Company. The demand for some patents, therefore, is limited to the desire to remove the dangers of litigation.

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[16] Oldfield Hearings of 1912, No. 26, p. 9.

In general there is a lack of public confidence in the reliability of an invention—rightly so, for many so-called inventions are next to worthless. The people are dubious of any new product, regardless of its intrinsic qualities. Inertia based upon habitual consumption must be overcome. The market for the class of products to which the invention belongs may be saturated, or the invention itself may be ahead of its time.[17] The various departments of the Federal government, for example, are usually indifferent to new inventions. Tying clauses, like those once maintained by the A. B. Dick Company and the United Shoe Machinery Company, may explain the impossibility of marketing a new and patented product. The inability to sell an invention, whatever the cause, necessitates its suppression.

The demerits of an invention may be examined from the standpoint of production or supply. The cost of manufacture and marketing may be too great as compared with the price and volume of sales of the patented product. In any event the initial expense of making and selling a new product is high. In a few instances it may be impossible to secure the necessary materials for applying the invention. It should be recalled that the Eastman Kodak Company at one time agreed to sell its sensitized film only to the Motion Picture Patents Company. Under such a condtiion how could the inventor of a new motion picture camera utilize his product?

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[17] Senate Document No. 6, p. 53.

Inadequate Finances. The inventor himself is proverbially poverty-stricken, and he experiences difficulty in securing financial aid from outside sources. Bankers and others are, and usually should be, hesitant in advancing funds for the development of an invention. Its possibilities are unknown, the patent may be invalid,—these and other factors intensify the risk. Witness the financial difficulties of Goodyear, Bell, and others. The promotion of the invention—its financing—is the stumbling block which leads to the involuntary suppression of thousands of patents, some of them—and if wise men could only discern which ones!—with great potentialities for success.

Incompetence of Patent Owner. The incompetence of the inventor requires little comment. The inventor is seldom a man of business ability. He is apt to be the builder of castles in the air. He may dream of the far-reaching effects of his invention, of the wealth which will be his, and of the good fortune of any one who may share the honor of developing it. His dream is broken by stern realities and he finds himself embittered and disappointed. He may become indifferent to what seems an unappreciative world, and therefore let his patent lie idle. Moreover, it should be noted that many inventors are ignorant even of the possible channels for marketing patents.

Illegality of Unauthorized Use of Improvement with Basic Invention. The consummation of every basic and pioneer invention of importance is followed by diverse improvements; but if these cannot be legally employed in conjunction with the former—as often happens when the owners of the improvement patents cannot secure licenses from the owner of the basic patent and cannot sell their patents to him—they are inevitably suppressed. On the other hand, obstructive patents covering improvements may necessitate the abandonment of the basic invention.

Expense of Replacing Old Equipment. Some manufacturers shelve patents rather than scrap existing equipment. The suppression of patents covering the automatic telephone and machines for making paper bags, which will be examined presently, are appropriate illustrations.

Attempt to Secure Industrial Monopoly. Suppression of patents may result incidentally from the attempt to secure a monopoly which exceeds the one conferred by a single patent. The milder form which it may take has been set forth by an eminent chemist. "So, in the case of patents, there are what are called alternate patents. If you know several ways of coming to the same result, the duty of the inventor, as a matter of self-protection, is to patent them all. If that is not done, then another man will come along and he will say, 'I will find a loophole, and I am going to beat this man out of his monopoly.' So you are compelled to take alternate patents, even if some of these are inferior methods."[18] One writer, in describing the conditional nature of patent property, stated, "Through the amplification of inventions therefore and by means of successive patents which overlap on subject-matter, as well as in the scope and character of the protection afforded thereby, the defects and risks inherent in particular patents can very frequently be effectually safeguarded."[19] A manufacturer of cotton machinery said that many inventions "illustrate logic rather than genius, for they are worked out with the definite intent of strengthening the situation when the claims of the important patents are not all-controlling."[20]

These quotations posit the idea of an individual inventor seeking to protect his pivotal idea by enmeshing it in a network of patents covering all the possibilities of manifesting the idea. Many of these patents, therefore, are contingent or alternate in character and are suppressed.

A far more odious practice, as described in an earlier chapter, consists of the control of practically all patents relating to a particular industry and therefore the domination of the industry. Many of these patents acquired for this purpose are suppressed, as will be shown presently. On the other hand, the refusal of a trust to buy a relevant patent usually results in its suppression, as there is no other outlet for it. What would the inventor of an improvement on shoe machinery do with his patent if he could not sell it to the United Shoe Machinery Company?

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[18] Nolan Hearings of 1919, p. 94.

[19] Richards, *The Conditional Nature of Patent Property,* p. 146, American Assn. of Inventors and Manufacturers, Washington, D. C.

[20] Draper, "Patents," *Proceedings of the Eleventh Annual Convention of American Cotton Mfgrs. Assn.,* Phila., Pa., 1907, p. 187.

EXTENT OF SUPPRESSION

The explanations of the suppression of patents suggest the extent of the practice. A large proportion of our patents, perhaps one-third of them, are not developed, because the inventions to which they relate do not have sufficient merit or value. It is estimated that nine-tenths of the patents issued by the United States do not bring enough financial reward to the inventors to cover the Patent Office fees, the charges of patent lawyers, and attendant expenses. Moreover, many patents are suppressed, as explained in the first part of this chapter, owing to inadequate finances, incompetence of the patent owners, the legal difficulties of using improvements in conjunction with patented inventions of a basic nature, and the desire to avoid the expense of replacing old machinery with new inventions. The extent to which the suppression of patents is incidental to the securement of industrial monopolies is suggested in preceding chapters and in the following pages.

Patents Granted to Americans. It is difficult to find specific evidence with which to prove the suppression of patents, as no thorough investigation has ever been made. A New York court in 1897 said that the National Harrow Company controlled 85 patents on spring tooth harrows, some of them unused.[21] A circuit court in 1906 ascertained that the Indiana Manufacturing Company had acquired over 100 patents relating to straw stackers which could not be used conjointly, and hence many of them had been suppressed.[22] In the so-called lock case a circuit court announced that "it is a fact, familiar in commercial history, that patent rights have a commercial value for purposes of extinction; that many patents are purchased in order to prevent the competition of new inventions and of new machines with old machines already installed."[23] The button-fastener and paper bag cases presented evidence of the suppression of patents.[24] The American Tobacco Company acquired a patent for a tobacco-stemming machine by purchasing a majority of the stock of the Standard Tobacco Stemmer Company; this machine was not manufactured, but the control of the patent by this combination prevented its development and use by competitors.[25]

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[21] National Harrow Co. v. Bement, 21 App. Div. N. Y. 290 (1897; 47 N. Y. S. 462.

[22] Indiana Mfg. Co. v. Case Mach. Co., 148 Fed. Rep. 21 (1906).

The American Bell Telephone Company, it is charged, bought up all patent rights pertaining to the automatic telephone and suppressed them. Congressman Nolan of California, Chairman of the House Committee on Patents, said, in 1919, that the automatic telephone company had installed its service in several cities in California, and had become a real competitor of the Bell company. The latter bought the patents and other property of the automatic company. The automatic service was discontinued, and the Bell company re-established its monopoly.[26]

The United Shoe Machinery Company bought the competing shoe machinery patents, together with other assets, of T. G. Plant, and the patents of other individuals and concerns. It would seem that all these patents could not be used conjointly in its shoe machinery. The control by one company of hundreds and even thousands of patents obtained from various sources, suggests the suppression of some of them. This statement applies not only to the United Shoe Machinery Company, but to the American Steel and Wire Company, the General Electric Company, and others as well.

In 1916 the A. B. Dick Company controlled 128 patents relating to only a few subjects.[27] Of these patents only 67, about one-half, were first issued to A. B. Dick; the others were acquired from other parties. Twenty-four of these patents relate to sheet-feeding apparatus in connection with a duplicating machine. It seems certain that these patents cannot be conjointly used in a single sheet-feeding apparatus, nor is one the outgrowth or development of another. They represent different lines of improvement of different basic inventions, all proceeding simultaneously. Thus, three of the patents relate to the feeding of sheets to a duplicating machine from the *top* of the pile, and two, from the *bottom;* the dates of issue of the former are February 2, 1904, July 3, 1906, and May 25, 1915; of the latter, June 19, 1906, and August 14, 1906. This shows that the development of the one line of invention did not cease before the other began. All the sheet-feeding apparatus employed in 1916 on the duplicating machines of the A. B. Dick Company fed the sheets of paper to the machine from the *top* of the pile. Prior to that time, it does not seem that the A. B. Dick Company provided its machines with an apparatus to use the Dick patents for feeding sheets from the *bottom* of the pile. In other words, some of the patents have never been used; and as this company has consistently refrained from using them, suppression has resulted.

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[23] Blount Mfg. Co. v. Yale and Towne Co., 166 Fed. Rep. 555, 560 (1909).

[24] 77 Fed. Rep. 288 and 150 Fed. Rep. 741, 210 U. S. 405.

[25] Report of Commissioner of Corporations on Tobacco Industry, Part I, p. 84.

[26] Nolan Hearings of 1919, pp. 147-148.

In 1916, 28 patents of the A. B. Dick Company pertained to stencil sheets. These patents cannot be used conjointly in the preparation of stencil paper; they represent different lines of invention, all independent of one another. They cover five methods of forming characters in the stencil sheet: namely, abrasion, pressure, heat, adhesion, and extraction. The dates of issue of the patents relating to abrasion are 1880, 1886, 1890, 1892, and 1914; to pressure, 1888 and 1892; to heat, 1893; to adhesion, 1894 and 1896; and to extraction, 1895. One method did not become obsolete and then another appear; improvement or evolution of the one did not cease before that of another began. All developed simultaneously, but without being interrelated. A. B. Dick himself received letters patent for one method only, pressure; all the patents covering the other four methods were issued to other parties, and A. B. Dick obtained control of them. These patents, representing five distinct means of forming characters in a stencil sheet, cannot be, and as a matter of fact were not, conjointly used; only two methods, pressure and abrasion, have been employed by the A. B. Dick Company. The acquisition of the other three methods would seem to have no legitimate justification; instead, it indicates an intention to monopolize all patents relating to the preparation of stencil paper so as to use a part of them and suppress the remainder.

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[27] This and the following statements are based on a study of the Dick patents, which may be obtained from the Patent Office. These patents were examined in 1916, when the legal status and the economic effect of the patentee's dictation of supplementary supplies for his patented machine or other articles were subjects of controversy.

The suppression of patents was brought out a few years ago in the hearings on bills relating to trust legislation: [28] "Paper patents, patents covering inoperative devices, and dormant patents (that is, patents not used but applied for and held for the purpose of preventing the manufacture of the devices or improvements therein described), are at the foundation of much of the most injurious monopoly and trade restraint. . . . There are thousands of patents lying dormant, having been acquired by established concerns whose business was threatened by competition."

One author has stated that, in spite of repeated denials, there are patents which are purchased by some of the largest corporations and then never developed.[29] Another writer has declared that many patentees have been caught by the manufacturer who offers large royalties for the sole purpose of gaining possession of the patent and then suppressing it. His objective, of course, is to keep the competing article out of the market.[30] The same result may be accomplished by the acquisition of the patent by another concern which the manufacturer secretly controls. An eminent patent lawyer, who is also an author of articles and books relating to patents, has stated that manufacturers suppress competing inventions, but they do not suppress to any great extent the inventions that would be a very great improvement on present articles.[31] Individual inventors have declared before Congressional Committees that their patents have been acquired for purposes of suppression. Finally, the Oldfield report of 1914 declared that "the practice of buying up and suppressing patents is widely indulged."

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[28] Hearings before the Committee on Interstate Commerce, U. S. Senate, 63rd Cong., 2nd Sess., Vol. II, p. 1078.

[29] Edelman, *Inventions and Patents,* p. 157.

[30] Cresse, *Practical Pointers for Patentees,* p. 65.

Patents Granted to Foreigners. The extent and effects of the suppression of patents are most readily appreciated when one considers the non-working of United States patents by citizens of other countries. Many foreigners who obtain patents from the United States do not utilize them in this country, but "work" them elsewhere, usually in their own country, form which they have also secured patents on the same subject-matter. In this manner, foreigners have reserved the United States as the exclusive market for their goods—a territorial monopoly, as it were, defined by national boundaries.

The extent to which United States patents may be suppressed by foreigners is suggested by the large number of patents, both absolutely and relatively, which are granted to foreigners by this country. During 1910 and 1915 the United States granted 21,073 patents to citizens of foreign countries, 11.43 per cent of the total number of patents granted during this period. From 1900 to 1910, the per cent of patents obtained by foreigners was 11.26; 1890 to 1900, 9.86; 1880 to 1890, 6.64; and 1870 to 1880, 4.50 per cent. Prior to 1870 the percentages were less and less. From 1915 to 1917, foreigners received only 8.52 per cent of the patents granted by the United States, owing to the influence of the war. About 80 per cent of the foreign patentees are citizens of Canada, England, France, and Germany. During the three periods, 1890 to 1900, 1900 to 1910, and 1910 to 1915, England received 32, 25, and 22 per cent respectively of all patents granted to foreigners by the United States; France received 9, 9, and 8 per cent respectively; and Germany, 25, 30, and 33 per cent.[32] The great increase in the relative number of patents granted to German citizens is to be noted, such patents increasing from 25 per cent of the total in 1890 to 1900, to 33 per cent in 1910 to 1915. The percentage fell to 22 per cent during the years from 1915 to 1917 because of the war.

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[31] Oldfield Hearings of 1912, No. 10, p. 17.

This relatively large number of patents granted to foreigners by the United States may be ascribed to the cheapness and convenience of acquiring and maintaining them. The initial patent fee is nominal and there are no yearly charges or fees. Moreover, this country does not require the "working" of patents—a factor of great importance to the foreigner.

Most of the patents granted to foreigners, to Germans especially, relate only to a few subjects, the dye and chemical industries in particular. This fact, together with the non-working of such patents in the United States, largely accounts for the lack of development of these industries in this country before the World War. Up to January 1, 1902, 1196 patents known to the Patent Office as "carbon dyes" had been issued, 622 of them during the decade 1891 to 1900. Of these 622 patents, 609 or 97.91 per cent were issued to foreign inventors, the Germans preponderating, and only 2.09 per cent to American inventors. During 1900 the value of the imports of coal-tar colors and dyes was $4,890,072, of which Germany is credited with $3,822,162. The country which furnished most of the patentees is the one which furnished most of the imports. During the same year the value of the artificial dyestuffs manufactured in the United States was $52,648, 1.07 per cent of the aggregate of imports and home product for 1900. It would seem, then, that there is a correlation between this per cent and the per cent of patents relating to this industry issued to American inventors, namely, 2.09.

Up to January 1, 1902, the Patent Office had issued 532 patents relating to "carbon compounds" (chemicals), of which 312 were issued during the decade 1891 to 1900. Two hundred and eighty-one or 90.1 per cent of these 312 patents were issued to foreign inventors, the Germans predominating, and 9.9 per cent to American inventors. During 1900, the value of the imports of "chemicals, drugs and dyes, all others (dutiable)" was $6,530,037, of which Germany was credited with $3,145,254. Again, it is evident that the country which furnished most of the patentees is the one which furnished most of the imports. During 1900 the value of fine chemicals made in this country was $4,206,744. This is 39.18 per cent of the total of imports and home manufacture, while 9.94 per cent of the patents covering chemicals were granted to American inventors.[33] This comparison is subject to slight error as the classifications of chemicals by the Census Bureau and Patent Office do not exactly coincide.

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[32] Annual Reports of the Commissioner of Patents to Congress.

Statistics for more recent years which show the correlation between the distribution of United States patents to citizens of this country and foreign nations on the one hand, and the relative values of manufacturers in the United States and imports into this country on the other, are not available. It would seem, however, that the correlation continued to exist until the outbreak of the war in 1914.

A report of A. Mitchell Palmer, alien property custodian, indicated the status and the prospects of the American industry of dyestuffs and medicines. Until August, 1914, it consisted largely of small assembling plants operating on German intermediates and therefore at the mercy of German producers. At the beginning of 1914, German concerns supplied nine-tenths of the dyes used in the industries of the United States. Measured in terms of value, Germany manufactured 74 per cent of the world's output of dyes.[34] The United States Tariff Commission, in its census of dyes and coal-tar chemicals, stated that from September, 1916 to April, 1917, "the dye industry sought the line of least resistance. As a rule this meant making old well-known dyes on which the patents had already expired and for which the intermediates could be most readily made. It meant expanding along familiar lines rather than entering new and untried fields. The American industry, before the war, had been chiefly confined to the group of dyes called 'azo' dyes. It was this group which had the greatest and earliest development. Whole groups of other dyes . . . were entirely neglected, partly because of patents owned by Germans and partly because a fundamental raw material (anthracene) was not available."[35]

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[33] Special Reports on Selected Industries, Manufacturers, Twelfth Census of the United States, 1900, Vol. X, Pt. IV, 1902, pp. 759-760.

[34] Bureau of Foreign and Domestic Commerce, Special Agent Series, No. 96, p. 30.

In 1914 a large proportion of the dye factories in England and France were owned and operated by German dye concerns because the patent laws of these two nations required the "working" of patents. On the other hand, the Germans owned practically no dye factories in the United States owing to the absence of a "working clause" in our patent law. During the war France and England took over the German dye factories, but the United States had no such factories to utilize—a situation due to the suppression of United States patents by foreigners.

This account of the dye and chemical industries indicates that the effect of the non-working of United States patents by foreigners upon the industrial development of this country varies with the nature of the patented inventions and the availability of the patented products. If the inventions represent mere improvements, it is quite possible for the manufacturers in this country to bring forth similar but different improvements or intensive inventions of equal or greater efficiency. If the inventions are basic or pioneer and highly original, as many of those relating to dyes and chemicals are, they are at a greater disadvantage. Moreover, this disadvantage may be extended to other industries by withholding from them the patented product upon which their development depends.[36]

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[35] U. S. Tariff Commission, Tariff Information Series, No. 6, 1917, p. 48.

[36] Ravenshear, *The English Patent System*, pp. 77, 78, 125, 126, 137; also, Martin, *English Patent System*, p. 29. Additional sources concerning the exploitation of patents by foreigners are: Shuster, "The Patent and Designs Act, 1907," *The Economic Journal*, Vol. XIX, p. 538; Palgreave, *Dictionary of Political Economy*, p. 76; *Workers of the Nation*, Vol. I, p. 339; Marshall, *Principles of Economics*, Vol. I, p. 362; Hesse, "Annual Patent Renewal Fees," *The Journal of Industrial and Engineering Chemistry*, Vol. XI, 1919, p. 697; "Discussion on Patent Law Reform," *Journal of the Society of Chemical Industry*, Vol. 36, 1917, p. 808.

CRITICISM

The spirit of our patent system is diametrically opposed to the suppression or non-working of patents in spite of the fact that inventions so treated may be disclosed in patents issued by the Patent Office. The public, in keeping with the philosophy and purpose of the patent laws, expects more than a mere description of the invention in return for the exclusive monopoly granted to the patentee for a period of seventeen years. As one writer has said, "Now, although full and honest disclosure of an invention constitutes the lawful consideration which will support the inventor's right to a patent, it is well known that such disclosure on the part of the inventor is not, in many cases, a consummation of the great object of the patent laws, namely, actually to place the patented improvements upon the market and thereby actually demonstrate the merits of the improvements and develop any possible latent defects."[37] The most efficient and profitable way in which the people can learn of an invention is by using it or the product which it manufactures. (One should remember in this connection that the Patent Office has not required models of inventions since 1880).[38]

The expectation that the patentee will use his invention is implied in our infringement laws, which protect the legal monopoly of the patentee—the right to exclude others from making, using, and selling his invention—throughout the entire period during which his monopoly extends. The corollary of this protection, it would seem, is that the patentee must develop his invention.[39]

If an invention is not worthy of development, the patent covering it should not be permitted to clog the stream of inventive thought to which it relates. Such a patent may conflict with the most advantageous use of another invention. Moreover, it may be a "scarecrow" patent in that it frightens away other inventors from the particular field of invention. The same situation applies to patents which are not developed on account of inadequate finances, incompetence of the inventor, or a desire to prevent the discarding of old equipment; whatever the cause, invention is discouraged, contrary to the purpose of the patent laws. As Palgreave has stated, "The granting of a patent may be a hindrance to industrial life, if the patentee, through want of energy or want of means neglects to work his invention, whilst others, who would be willing and able to do so, are afraid of infringing his rights."[40]

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[37] Senate Document No. 6, p. 43; also see Hesse, "Annual Patent Renewal Fees," *Journal of Industrial and Engineering Chemistry*, Vol. XI, 1919, p. 697.

[38] Oldfield Hearings of 1912, No. 27, p. 101.

[39] *Robinson on Patents*, pp. 65-67.

At this point one should consider whether it is socially desirable to suppress patents in order to utilize old equipment more completely. It is argued that the immediate adoption of a new invention, such as the automatic telephone, however worthy, may mean maladjustment and unemployment of labor, and waste of capital; and therefore that it is desirable to delay or graduate the introduction of invention. This contention undoubtedly has considerable merit. But it should be remembered that technical and industrial progress, as someone has appropriately remarked, may be measured by the size of the scrap pile. Witness, for example, in the technical development of the American railways how engines and cars were discarded and more efficient engines and cars adopted. The abandonment necessitated considerable waste; the adoption of the new rolling stock meant progress. Each is a balancing factor to the other, and the one that predominates depends largely upon the circumstances of each particular case. In any instance it should be borne in mind that the suppression of patents *per se*, whatever the excuse, discourages invention and falls short of fulfilling the spirit of the patent law and the expectations of the public; and that competition, one of the cornerstones of the existing economic order, implies the adoption, even with attendant wastes, of the most efficient methods by gain-seeking rivals.

The suppression of patents is often the result of acquiring practically all patents relating to a particular industry. Some of them are used and the others are suppressed. This prevents the competition that would otherwise spring up between the owners of the patents, and is contrary to the purpose of the patent law to grant a monopoly in the *beneficial use of a specific invention* and not of an *industry*. The acquisition of kindred patents and the suppression of some of them not only promote monopoly; they also discourage invention and retard industrial progress, and hence defeat the purpose of the patent law. The inventor, imbued with the creative instinct, cannot behold the concrete utilization of his ideas, and to that extent the stimulus to inventive endeavors is taken away.

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[40] Palgreave, *Dictionary of Political Economy,* p. 76.

The suppression of United States patents by individuals and concerns of this country presents a worse situation, from the standpoint of our general economic welfare, if corresponding patents are not secured in other nations. It means that the people of the United States are forbidden to make the inventions patented here, while foreigners are free to develop them. The gravity of this situation may be appreciated when one considers that many American inventors, though securing United States patents, obtain patents in none of the foreign countries or in relatively few of them.

The arguments against suppression are accepted most readily when considered in connection with patents granted to foreign citizens. It is a contravention of our patent law and an economic injustice to the American manufacturer to allow foreigners to take out patents in this country merely for the purpose of reserving the United States as a market for their patented products, which are manufactured abroad exclusively. This situation means the acquisition of a territorial monopoly and the discouragement of invention by excluding would-be competitors and inventors of the United States from the industries covered by the patents; moreover, at the same time the industries of other countries are built up to the detriment of the United States.

CHAPTER VII

OTHER EVILS OF THE PATENT SYSTEM

Previous chapters described different methods used in exploiting patents. The purpose of this chapter is to discuss a miscellaneous group of other evils arising from the patent system, as follows: litigation, delay in granting patents, inefficient and unethical attorneys, unscrupulous promotion of patents, employer-employee contracts, and continuation of monopoly after expiration of patent.

Litigation

Extent of Litigation. The amount of patent litigation constitutes a fundamental weakness of our patent system. Ten per cent of the time of the United States courts is devoted to patent cases.[1] Patent litigation occurs in the courts of equity; the district court has original jurisdiction, and its decision is usually followed by an appeal to the circuit court of appeals. This may be repeated in other circuits, theoretically eight in all. A patent has been characterized as an invitation to infringement suits. One of the patent commissioners reported to the Secretary of the Interior, "In payment for the invention the inventor obtains the right to bring suit in the Federal courts against infringers during the period of 17 years." [2] It is usually necessary to adjudicate a patent in order to establish its validity. One of our Federal judges stated in 1919: "A patent, until the courts have finished with it, is not a real protection to the inventor." Further, "as the law stands now," he said, "I do not think it is an exaggeration to say that a patent is not a patent all over the United States until the inventor has gone through two, and in very serious cases more than two, expensive litigations."[3]

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[1] Prindle, "The American Patent System," *American Industries,* 1908, Part I, p. 20.

[2] Oldfield Hearings of 1912, No. 25, p. 4.

Expense of Litigation. Patent litigation is very expensive, in that it necessitates skilled attorneys, expert testimony, documentary evidence, and extensive preparation for trials. This expense has been less burdensome since the year 1912, which marks the promulgation of the new equity rules providing that all testimony, except under special circumstances, must be taken in open court. Prior to that time, testimony could be taken before an examiner, and it was invariably written in longhand and then printed. Enormous, and for the most part useless, quantities of it would be presented to the court of equity for its consideration. As already suggested, this added greatly to the expense of the litigation. The most famous case of this sort involved the Selden patent, in which instance thirty-six large octavo volumes of printed testimony were laid before the judge for his perusal. But even with this improvement in judicial procedure since 1912, the expense of adjudicating patents remains enormous. It is so great, according to E. J. Prindle, that only the largest companies can stand the expense of a full-fledged litigation carried to the extreme limits.[4]

The expense of defending one's patents frequently equals or exceeds the revenue derived from them. About $1,000,000 was spent to prevent the infringement of the Edison incandescent lamp.[5] The president of Thomas A. Edison, Inc., once stated that Edison had spent more money in obtaining patents, litigating them, and preventing infringements of them than he had received from his patents as such.[6] One inventor stated to the House Committee on Patents that he knew of two infringers of his patents but that he would not sue them because he would not receive enough to pay the legal expenses.[7]

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[3] Nolan Hearings of 1919, pp. 119-120.

[4] *Ibid.*, p. 69.

[5] W. Kaempffert, "Our Defective Patent System," *The Outlook*, July 6, 1912.

[6] Oldfield Hearings of 1912, No. 2, p. 32.

[7] *Ibid.*, No. 23, p. 30.

Reduction in Effective Life of Patent. Another aspect of the burden of patent litigation consists of delays. These not only increase expenses, such as lawyers' fees, but they diminish the effective life of the patent. A patent is a monopoly of limited duration, and therefore each year of delay in ascertaining its legal status means practically one year less of its effective operation. Several years ago it was estimated that the average infringement suit lasted five years. This statement indicated a definite and clear-cut patent monopoly of twelve instead of seventeen years.[8] Frederick P. Fish, in 1919, before the House Committee on Patents, stated that prior to the adoption of the new equity rules few cases were decided in less than a couple of years, and sometimes they continued seven or eight years. The new rules of 1912 have apparently reduced the delay in patent cases.[9]

Causes of Litigation. The excessive amount of patent litigation in the United States arises from several causes, as follows: (1) large number of patents and claims; (2) invalidity of many of these patents and claims; (3) infringement suits arising from the malicious action of one of the litigants; (4) conflict between the nine different circuit courts of appeal; (5) the doctrine of "equivalents"; and (6) right to sue individual users of an article charged with infringement. The consideration of these causes constitutes the subject matter of the next seven pages.

a. Number of Patents and Claims. The very large number of patents granted by the United States to its own citizens and foreigners is undoubtedly one of the sources of litigation.[10] This country grants more patents than any other; in fact, it has granted up to date approximately one-third of all the patents conferred by all nations.[11] Thousands of patents overlap each other to a considerable extent. They may describe means which vary only slightly in performing the same function or in accomplishing a particular result; for example, there are hundreds of patents on safety razors, and thousands on wrenches. This leads to infringement suits, disappointment of inventors, and the general disrepute of the patent system.

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[8] Kaempffert, "Our Defective Patent System," *The Outlook,* July 6, 1912.

[9] Nolan Hearings of 1919, pp. 57-58; Oldfield Hearings of 1912, No. 4, p. 36.

[10] *Ibid.,* No. 15, p. 5.

[11] Report of Commissioner of Patents to Congress, Dec., 1920, p. 12.

The large number of United States patents is due primarily to three causes: (1) an insufficient number of examiners in the Patent Office; (2) the subject which a patent may cover; and (3) its exemption from fees after issuance.

There are thousands of applications for patents each year. Their number exceeds considerably the number of patents granted; nevertheless the Patent Office of the United States grants patents to a larger proportion of applicants than does that of any other country employing the examination system. The rejections are only one-half as great as in Germany, in proportion to the number of patents applied for.[12] One of the primary functions of the Patent Office, namely, that of refusing patents, cannot be properly exercised owing to an insufficient force of men in the employment of the Patent Office.

A slight improvement or a somewhat different way of accomplishing a particular result, may be patented in the United States. Moreover, the typical United States patent contains several claims that overlap each other considerably, and each claim is a permit for a lawsuit. On the other hand, the patent law of Germany requires that patents must cover broad claims; it does not recognize the narrow claim of an application which shades off into the broad claim of a patent already issued, as proper subject matter for a patent. This comparison furnishes the primary explanation of the much larger proportion of rejections in Germany than in the United States. The ability to secure patents covering inventions which are slightly distinguishable in the function performed necessitates "alternate" or "blocking" patents in order to protect an invention. A large number of patents covering all the ways of accomplishing a particular result is necessary in order to protect the essence of the invention. In other words, numerous patents are required to accomplish what one patent containing a broad claim would accomplish. The defect or incompleteness of one patent is safeguarded by another. Moreover, a patent may not be interpreted by the court from the standpoint taken by the inventor or his attorney when the patent was granted. This possibility suggests the desirability, for the sake of protection, of several patents covering practically the same subject.

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[12] Ravenshear, *The English Patent System*, p. 132.

The United States, in contrast with other countries, does not impose yearly fees upon the holders of the patents which it has issued. There is no occasion for the revocation of patents by the United States because of non-payment of fees. Every patent issued by this country, unless declared invalid, runs for seventeen years. It may not be used, as is true of many patents, but its legal existence continues.

An enormous number of patents, the average one containing several claims, whatever the reasons for their existence may be, increases the likelihood of litigation.

b. Invalidity of Patents and Claims. Another cause of litigation is the number of invalid patents. A patent covering an alleged invention may be invalid because of prior public use of which the Patent Office has no record; disclosure in some prior patent overlooked by the patent office examiners; or difference in judgment between the courts and the Patent Office as to whether the patented matter is such a departure from what was known to be old as to constitute invention.[13] The enormous number of patents granted in this country as compared with other nations suggests the invalidity of some of them. During 13 years, from 1891-1904, 30% of all the patents which were adjudicated by the circuit courts of appeal of the United States were declared to be invalid; 29% were declared to be valid; and 41% were declared not to have been infringed.[14] The Federal courts lack confidence in the validity of patents, as is shown by their unwillingness to protect them against alleged infringement by granting a preliminary injunction. To-day, as a rule, a court will grant a preliminary injunction against an alleged infringer only if the validity of the patent has been established, or if it has gone unchallenged for several years. Furthermore, the prevalence of invalid patents is indicated by the fact that many private corporations and trade associations examine relevant patents to test their validity. The National Automobile Chamber of Commerce, for illustration, examines automobile patents so as to prevent automobile manufacturers from paying tribute for the use of invalid patents. It finds that the majority of such patents are invalid either partly or entirely.[15]

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[13] *Michigan Law Review*, Apr., 1908, Vol. 6, p. 442.

[14] House Report (Misc.) No. 2145, 60th Cong., 2nd Sess., p. 4.

An attempt will be made to present the specific reasons for the issuance of invalid patents, as follows: lack of examination, disagreement of courts concerning patents, defective soliciting by patent attorneys, and ignorance of other inventions.

The increasing number of applications for patents has made the number of patent examiners inadequate; and the rising cost of living, reducing the purchasing power of their salaries, has resulted in a high rate of turnover in the Patent Office staff. Moreover, aside from the number and efficiency of examiners, it is becoming increasingly difficult to ascertain the originality of an invention. The number of patents granted by all nations, up to 1919, was 4,296,659.[16] The Patent Office does not have copies of all these patents, and in other respects its working facilities are incomplete for the granting of valid patents.[17] It is no exaggeration to say that at present we have only a one-half examination system; the other one-half is mere registration.[18] A Federal judge, in speaking of the patent cases which had come before him, stated in 1919, "I seldom find that the prior patent, what we call the prior art on which the validity of the patent depends, has been discovered in the Patent Office." [19]

After securing and examining all data relating to a patent application, it may still be impossible for an examiner to make a decision which will insure the validity of the patent, for the courts themselves may disagree with respect to what

[15] Nolan Hearings of 1919, p. 291.

[16] Report of Commissioner of Patents to Congress, Dec., 1921, p. 17.

[17] Oldfield Hearings of 1912, No. 4, p. 37.

[18] Nolan Hearings of 1919, p. 103.

[19] *Ibid.*, p. 128.

constitutes patentability, infringement, and related subjects. A recent commissioner of patents stated that "we in the Patent Office are sometimes mystified to the detriment of our best work, by the conflicting opinions in the different circuits." [20] In a judicial system like ours, where it is possible for courts of equal dignity and authority to conflict with each other without any right of appeal to a higher court, invalid patents are inevitable. "Under the present system of nine circuit courts of appeal, there is serious confusion in the application of the patent law to special cases, resulting in some instances in a divergence of views between two different courts of appeal as to the validity and scope of the same patent, and generally in the different circuits in a want of harmony as to question of patentability, construction of patents, and infringements; that is a serious evil." [21]

Defective and therefore invalid patents may arise from poor soliciting. It may result in vague and inadequate patents, and therefore poor protection to the inventor. A patent lawyer needs accurate and comprehensive knowledge in order to serve his client and strengthen the legal position of patents. A patent lawyer who knows nothing of technical matters, as is true of many of them, may take out patents which are broader or narrower than the applicant expects and deserves.[22]

Moreover, many improvements are not patented owing to fear of litigation and its attendant expenses. Many concerns take the position that patents would merely encourage imitations and, therefore, they resort to secrecy.[23] As a result, a considerable number of inventions in public use are not on record in the Patent Office; there is accordingly greater likelihood of patents that are legally unsound. Invalid patents, regardless of the reasons for their prevalence, lead to litigation.

c. Infringement Suits without Good Faith. Unfair competition, as pointed out in another chapter, often takes the form of litigation. Infringement suits against competitors, particularly small companies and individuals, may be brought in bad faith.[24] The object may be to drive them out of business, to invalidate a particular patent, or to receive money for the withdrawal of the suit.[25] Furthermore, a large corporation may knowingly infringe the patents of a small competitor. It is fairly safe in doing this because a preliminary injunction is seldom granted until the validity of the patent has been proven, and damages of any considerable amount are seldom collected.[26] The corporation appreciates the almost unlimited extent to which litigation may proceed, the possible delays, and the necessary expenses. It figures that it may wear out the competitor until he compromises or submits to the infringement, and that, in any event, it can escape with the payment of little or no damages. In New York less than ten per cent of the infringement cases in which accountings were decreed, show substantial recovery.[27]

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[20] Nolan Hearings of 1919, p. 187.

[21] Senate Document No. 225, 63rd Cong., 1st Sess., p. 24.

[22] Sewell, *Law of Patents,* p. 14.

[23] Interviews with manufacturers.

A patent lawyer gave the Oldfield Committee an illustration of the extent and delay of patent litigation, and therefore of the temptation to infringe the patents of a competitor. "We have won a case and recovered judgment for $350,000 after 6 or 7 years of litigation, but by that time the defendant had dissipated all the profits of the enterprise, and we could get only $25,000 in settlement of our judgment. In another case against the Brill Company of Philadelphia, we litigated for over 14 years, I should say, and finally received $200,000 for our client as the result of a proceeding that went all the way to the Supreme Court of the United States. But, when we collected, our client was ruined and out of business, while the Brill Company was in a flourishing condition." [28]

d. Conflict between Circuit Courts of Appeal. The judicial machinery of the United States is conducive to litigation.

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[24] Oldfield Hearings of 1912, No. 10, p. 26; No. 15, pp. 6-7, 10.

[25] Meade, *Trust Finance*, p. 278.

[26] House Document No. 1110, 62nd Cong., 3rd Sess., p. 208; Draper, "Patents," *Proceedings of the Eleventh Annual Convention of American Cotton Manufacturers' Assn.*, 1907, p. 186.

[27] Macomber, "Patents and Industrial Progress," *North American Review*, June, 1910.

[28] Oldfield Hearings of 1914, Part 6, p. 116.

The Evarts Act of 1891 abolished the circuit courts and created nine circuit courts of appeal of equal dignity. The district courts, instead of the circuit courts, now have original jurisdiction in patent cases, and appeals may be taken to a circuit court of appeals. The act discontinued the right to appeal patent cases to the Supreme Court except by certiorari; the discontinuance of this right arose from the desire to lighten the docket of that tribunal. Each circuit court of appeals, as a matter of comity, considers the decisions of the other eight circuits; however, it is not bound to follow them. A patent may be valid in one circuit and invalid in another, and its owner may, therefore, win a suit for infringement in one circuit and lose it in another. Judicial conflicts of this sort may not be reviewed by the Supreme Court. Therefore, it may happen that the manufacture and sale of an alleged invention in one circuit is illegal while in another legal. In 1919, the Patent Committee of the National Research Council reported that "it has even happened in a substantial number of cases that two of the appellate courts have taken a different view of one and the same patent."[29] In 1908 a report of the House of Representatives stated that many cases have arisen in which a patent which has been sustained in one circuit court of appeals is vacated by another circuit court of appeals.[30] The awkwardness of this situation and the apparent lack of good faith on the part of the government which grants the patents require no explanation.

e. Other Causes. Another source of litigation has been the "doctrine of equivalents." The courts employ the so-called doctrine of equivalents according to which the inventor may include within his monopoly not only everything described by the language of his claims, but everything which is the mechanical or chemical equivalent. This rule, though giving the court an opportunity to do equity, means uncertainty and litigation.[31] Moreover, the right of the patentee to sue the users of articles that are supposed to infringe patents encourages litigation.[32]

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[29] Nolan Hearings of 1919, p. 7.

[30] House Report (Misc.) No. 2145, 60th Cong., 2nd Sess., p. 2.

[31] Prindle, "The American Patent System," *American Industries*, 1908, Part II, p. 18.

Importance of Litigation to Public. Patent litigation is more significant than the ordinary lawsuit, in that it indicates to the public the legal boundaries of a patent monopoly, and therefore their rights as well as those of the individual contestants. The necessity of litigation increases the uncertainty as to the respective rights of the inventor and the public. The Brandegee report of 1912 declared that "the owner of a questionable patent has a color of right to prevent others from using some machine, device, combination, or process which may in fact have been more or less widely known before the patent was ever applied for; and this may result in the manufacturer, through fear of infringement, abandoning the use of an idea which in justice he should have had the right to use." [33] The chairman of the Patent Committee of the National Association of Manufacturers stated, in 1919, "Uncertainty in law and in property rights is a direct and powerful business retardant, and the increasing number of indefinite, uncertain, and invalid patents is a direct menace to many of the industries of the country." [34] These considerations emphasize the desirability of reducing patent litigation to a minimum so as to define and safeguard the rights of the public.

DELAY IN GRANTING PATENTS

In a contest on priority of invention, the filing of an allowable application is the equivalent of an actual commercial use.[35] Moreover, the inventor is allowed one year in which to reply to the official letters of the Patent Office concerning his application.[36] Regardless of the number of answers to the notices of the Patent Office and the time consumed as a result, the prior inventor is entitled to receive a patent on his invention. While the patent is pending, he may begin to manufacture the patented product, or the invention may lie dormant. No one else is likely to develop his invention. Applications for patents are kept secret in the Patent Office; and though the invention be known, others hesitate to utilize it because they may become infringers when the patent is granted. Moreover, the patent dates from the time of issue by the Patent Office. These factors encourage the delay in the prosecution of an application for a patent, so as to extend unduly the monopoly of the invention beyond the statutory period of seventeen years.

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[32] Oldfield Hearings of 1914, Part 7, p. 142.

[33] Senate Report No. 1034, 62nd Cong., 2nd Sess., p. 2.

[34] Nolan Hearings of 1919, p. 109.

[35] *Patents,* Machinery's Reference Series, p. 23.

[36] Rules of Practice in the U. S. Patent Office, 1916, Rule 77.

Extent of Practice. Instances of extreme delay in the granting of patents may be cited. One of the automatic telephone cases, involving about 400 claims, was pending over sixteen years.[37] The extent of delayed applications is summarized in the following table:

Number of applications pending 15 years or longer:

Dec. 31, 1915	29
Dec. 31, 1916	15
Dec. 31, 1917	18
Dec. 31, 1918	30
Dec. 31, 1919	47
Dec. 31, 1920	60

Number of applications pending 10 years or longer:

Dec. 31, 1915	183
Dec. 31, 1916	141
Dec. 31, 1917	157
Dec. 31, 1918	162
Dec. 31, 1919	146
Dec. 31, 1920	145

Number of applications pending 8 years or longer:

Dec. 31, 1915	419
Dec. 31, 1916	283
Dec. 31, 1917	261
Dec. 31, 1918	237
Dec. 31, 1919	218
Dec. 31, 1920	222

Number of applications pending 5 years or longer:

Dec. 31, 1915	2,646
Dec. 31, 1916	1,614
Dec. 31, 1917	1,149
Dec. 31, 1918	1,003
Dec. 31, 1919	1,006
Dec. 31, 1920	1,151

Number of applications pending 2 years or longer:

Dec. 31, 1915	26,171
Dec. 31, 1916	22,098
Dec. 31, 1917	20,548
Dec. 31, 1918	21,631
Dec. 31, 1919	23,265
Dec. 31, 1920	22,823

Total number of applications pending not in issue or forfeited:

Dec. 31, 1915	102,632
Dec. 31, 1916	97,463
Dec. 31, 1917	98,558
Dec. 31, 1918	92,156
Dec. 31, 1919	107,390
Dec. 31, 1920[38]	127,641

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[37] Nolan Hearings of 1919, p. 238.

[38] Report of Commissioner of Patents to Congress, December, 1920, p. 14.

Taft's commission on economy and efficiency reported, "That there is a considerable percentage of applications which are intentionally delayed by the attorney or the applicant is possible of proof. It may be true that an inventor of small means is anxious to have his application acted on as soon as possible, but even in the case of such an inventor it is not always true that he wishes prompt action, while in the case of applicants who are stronger financially it is alleged the intentional delay is not uncommon."[39]

Causes of Delays. The delay in the granting of a patent may be attributed to the inventor, to the Patent Office, or to both. More specifically, it may be on account of unwarranted claims in the application, the inopportuneness of the invention, the desire to include subsequent inventions, interferences, and conditions in the Patent Office. Two or more of these factors, of course, may be operative at the same time.

a. Unwarranted Claims in Application. The initial claims of a prospective patentee are usually broader than his invention justifies. As a rule he is not acquainted with the art to which it refers. A former commissioner of patents, in 1919, described this situation:

"There is hardly any application for patent filed now but what is rejected the first time, and naturally so, and that is something that nobody that I know of can obviate. The attorneys do not know when they file the applications and the inventors do not know what has been done before. The inventor is not acquainted with the art ninety-nine times out of a hundred, and he comes in with broad claims. He claims and he thinks that the invention is very much broader than it is ordinarily, so that the office has to tell him that his claims are too broad. He then comes back and amends. We cite him to references, and we give him what patents have been taken out before he comes into the office, and he then amends his application and by rewording his claims he avoids those references. Then the office examines the application as amended. The applicant is given a year in which to do that, and frequently there are several communications passing between the office and the inventor before each is satisfied that the invention is properly claimed in the application. Taking the average of all of the applications we have, that process takes, I believe, about a year and a half or two years." [40]

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[39] House Document No. 1110, 62nd Cong., 3rd Sess., p. 179.

b. Inopportuneness of Invention. Moreover, the time may not be opportune for patenting and introducing an invention, owing to the prevalence of an economic depression or the backwardness of the industry to which it relates. In either case the invention is ahead of its time.

Perhaps the most notorious example of a delayed application is the Selden patent. It pertained to the propulsion of a vehicle by means of a gasoline engine. A circuit court of appeals,[41] which declared the patent invalid, described and discussed the delayed application: [42]

"This patent was applied for in 1879 and granted in 1895. For over 16 years the application lay in the Patent Office, and the applicant took full advantage of the periods of inactivity permitted by the rules and statutes. It is apparent that he delayed just as long as possible the issue of the patent to him. During this long time the automobile art made marked advances along different lines, and when, in 1895, the patent was granted, it disclosed nothing new. Others had then made the patentee's discovery and had reduced it to practice in ignorance of what he had done. While he withheld his patent, the public learned from independent inventors all that it could teach. For the monopoly granted by his patent he had nothing to offer in return. The public gained absolutely nothing from his invention, whatever it was. From the point of view of public interest it were even better that the patent had never been granted. Judge Hough was quite within bounds in saying: 'No litigation closely resembling these cases has been shown to the court, and no instance is known to me of an idea being buried in the Patent Office while the world caught up to and passed it, and then embodied it in a patent only useful for tribute.' "[43]

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[40] Nolan Hearings of 1919, p. 188.

[41] Columbia Motor Car Co. v. Duerr, 184 Fed. Rep. 893, 1911.

[42] All told, $2,000,000 in royalties was paid before the patent was declared invalid. W. Kaempffert, "Our Defective Patent System," *The Outlook,* July 6, 1912.

The incentive to delay the granting of a patent may relate primarily to an improvement on a basic invention. An improvement cannot be used legally in conjunction with a patented basic invention without the consent of the patentee; therefore, it is to the interest of the inventor of the improvement to take out his patent about the time that the patent on the basic invention expires. Moreover, the incentive to do this may be present even though the same company controls both inventions. By graduating the delay in the securement of patents on improvements according to the expiration of basic and other patents, a monopoly may be extended indefinitely.

Prindle stated that "an exceedingly interesting instance of an attempt to prolong the monopoly after the expiration of the original patent is the case of the telephone. The main Bell telephone patent was issued in 1876 and expired in 1893. In 1877 an application for patent was filed by Berliner, and this application was kept alive in the Patent Office until 1891, when the patent was issued. The best form, and practically the only commercial form, of telephone transmitter is the loose carbon or microphone transmitter, and the Bell company contended that this Berliner patent covered this transmitter. In 1903 the patent was held by the court to cover only a transmitter having metallic contacts, and not to cover the microphone transmitter; but if the company's contention had been sustained, the monopoly would have extended from 1876 to 1908."[44]

c. Desire to Include Subsequent Inventions. An applicant by "juggling" with an application in the Patent Office several years, may use it as a scoop or dragnet for all similar applications which may be filed during the interim by other inventors. When a revelant patent is issued to another inventor the applicant immediately becomes busy with the dormant application, amending and broadening the originally loosely drawn specification and claims so as to include the invention which has just been patented. Two examples of this practice, accompanied by affidavits, were presented in 1912 to the House Committee on Patents by an inventor who described himself as the victim.[45] Dr. Baekeland stated in 1912, that "with our current methods, it is possible to file patents and let them pend for many, many years, and use these pending applications as a dragnet in which to catch any other patents which may be applied for by others and by which to get the benefit of any practical developments or improvements which go on in the meantime."[46] An inventor "of a system known as the 'Telesene system,' used in hotels to call up the office and order anything that the guest wished to order from his room, where he was given a wide choice of articles, had an application on that system, and he drew a claim ultimately in the course of something over 15 years' prosecution, which embraced within its terms the central battery system in telephone communication, although the central battery system was not in existence when he filed his application on the Telesene and was not within his contemplation when he filed that application."[47] The Commissioner of Patents, in 1912, recommended the speedy issuance of letters patent "to prevent applicants from holding their applications in the office awaiting developments of the art by others and thereafter taking out broad patents which cause those who have made independent inventions during the pendency of the application to pay tribute to an applicant who has merely lain in wait for such developments."[48]

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[43] 184 Fed. Rep. 893, 894-895. In 1908 Selden received another automobile patent, the original application for which was filed in 1879. W. Kaempffert, "Our Defective Patent System," *The Outlook,* July 6, 1912. Other references to the Selden patent are: Allen, *United States Automobile Patents,* p. 491; and Edelman, *Inventions and Patents,* pp. 257-258; and Nolan Hearings of 1919, p. 298.

[44] Prindle, *Patents as a Factor in Manufacturing,* p. 71.

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[45] Oldfield Hearings of 1912, No. 21, pp. 33-34.

[46] *Ibid.,* No. 4, pp. 37-38.

[47] Hearings before the House Committee on Patents, 64th Congress, 1st Session, p. 4.

[48] Oldfield Hearings of 1912, No. 1, p. 8. Other sources relating to dragnet patents are: Hearings before the House Committee on Patents, Patent Office Certificates of Correction, Jan. 31, 1912, pp. 60-68; Oldfield Hearings of 1912, No. 10, p. 31; Imperial Industries Club, "Symposium on Compulsory Working of Patents and Designs in England," *The Journal of Industrial and Engineering Chemistry,* Vol. 7, 1915, p. 307.

d. Interferences. Much of the delay in granting patents arises from interference proceedings. They are for the purpose of determining priority of invention between two or more parties claiming substantially the same patentable invention.[49] The interference may occur when different inventors, at practically the same time, file their applications covering the same subject matter; neither one anticipates a conflict with the other. On the other hand, those who file "dragnet" applications expect them to interfere with subsequent inventions; they are made for that purpose. The preparation, presentation, and consideration of these cases, together with various appeals which may be taken, mean indefinite delays.[50]

A lawyer stated, in 1914, before the Oldfield Committee: "I shall briefly refer to an interference which is still pending in the Patent Office, in which I am general counsel for one of the parties. To this interference there are three parties, and the applications involved have been pending in the Patent Office many years. The application of one of the parties was filed April 1, 1901, and has been pending a period of 13 years; the application of another of the parties was filed July 16, 1904, and has been pending a period of nearly ten years; and the application of the third party was filed February 11, 1905, and has been pending a period of more than nine years. The application of the party represented by me has been involved in three different interferences. The first of them was prosecuted through all of the tribunals of the Patent Office and to the court of appeals, and then the second interference was declared, and was prosecuted through all the tribunals of the Patent Office and to the court of appeals, and then the third interference was declared, which is the one now pending, and that is on its way through all the tribunals of the Patent Office and to the court of appeals."[51]

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[49] House Document No. 1110, 62nd Cong., 3rd Sess., p. 44.

[50] Edelman, *Inventions and Patents*, p. 121; Wright, *Inventions, How to Protect, Sell and Buy Them*, pp. 89-92; Kimmel, *Patent Knowledge for Inventors*, pp. 60-61.

[51] Oldfield Hearings of 1914, p. 5; statement of Wm. A. Redding, Merchants' Assn., N. Y. City.

An inventor declared, in 1912, before the Oldfield committee that he knew of interferences which had been pending nine years.[52] For the year ended June 30, 1922, the interferences declared in the Patent Office numbered 2260.[53] Interferences constitute the chief explanation of the prolonged delays in the Patent Office.

e. Conditions in Patent Office. Another reason for delayed applications is the condition of the Patent Office. The extremely complex and involved procedure within the Patent Office, especially with respect to interferences, accounts for many delays.[54] Furthermore, insufficiency in the number of patent examiners causes much of the delay in the granting of patents. In July, 1919, Commissioner Newton said, "I have been connected with the Patent Office since 1891, and I am sure that the office was never in so poor a condition as it is now. It is poor in this respect, that I cannot get examiners."[55] In December, 1920, Commissioner Whitehead declared that the average new case is reached for its first action about seven months after it is filed. In December, 1922, Commissioner Robertson stated, "Since Commissioner Newton made the foregoing statement in July, 1919, conditions have been steadily growing worse. At that time the Patent Office was 18,000 applications in arrears; 18 months afterwards Commissioner Whitehead reported 40,000 cases in arrears; and now I am compelled to report 61,000 patent applications besides 6,000 trade-mark and design applications awaiting official action."[56] In August, 1922, the same commissioner reported 69,944 patent applications awaiting official action—"sufficient to occupy the whole force for a year, even if all new work were refused."

Consequent Risk in Development of Patents. The delay in the granting of a patent postpones the availability of the invention, and unduly prolongs the patentee's monopoly. Both results violate the spirit if not the letter of the patent law. Moreover, this delay increases the risk connected with the development of patents. Delayed applications for patents—especially the "dragnet" variety—may when granted nullify the patents of other inventors and impair the capital already devoted to their development.[57]

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[52] Oldfield Hearings of 1912, No. 4, p. 40.

[53] Report of Commissioner of Patents to Secretary of Interior, 1922, p. 7.

[54] E. Wetmore, *Notes on Patent Law,* American Bar Assn., 37 Report 1914.

[55] Nolan Hearings of 1919, p. 188.

[56] Report, Commissioner of Patents to Congress, December, 1921, p. 3.

The application for the Woodbury planer patent was in the Patent Office 28 years prior to its issue. Meanwhile others had been manufacturing and selling the invention in question. The appearance of the patent compelled them either to cease the manufacture and sale of the article or comply with the terms of the patentee.[58] The president of the Draper company told of the experience of his concern with delayed applications: "We were once made liable by the issuance of a patent nine years after its application. We had been manufacturing the infringing device made under a patent of our own granted much earlier. We had to compromise with the owners of the new patent, since it antedated ours; in fact, we had to buy the right of use at a very substantial figure."[59]

A manufacturer of shoe machines gave several illustrations of the effects of "dragnet" applications. One of these examples is as follows:

"In May, 1912, Andrew Raiche filed an application for a machine for setting lacing hooks. A very careful investigation was made to ascertain whether or not this machine infringed any prior patent. Nothing could be found which contained claims that were infringed. This application was considered by the Patent Office and a number of claims allowed, some of them very broadly, and the features of the machine were apparently new.

"In view of the fact that the prior investigation and examination of the Patent Office disclosed no patents which apparently were infringed, the manufacturers decided to build the

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[57] It should be remembered that an inventor, in applying for a patent, is ignorant of the applications of rival inventors which may be pending.

[58] Hearings before the House Committee on Patents, Patent Office Certificates of Correction, Jan. 31, 1912, pp. 60, 66.

[59] Draper, "Patents," *Proceedings of the Eleventh Annual Convention of American Cotton Manufacturers Assn.,* 1907, p. 191.

Raiche machine and spent a great deal of money in making patterns, tools, jigs, template, etc., and actually placed on the market many of these (Raiche) machines.

"It was not until January, 1914, that the Patent Office declared an interference between this application of Raiche's and an application which had been filed by one Goddu, which latter application had been pending in the Patent Office since 1905. The situation is obvious. Since Raiche's invention was made so late in date the Goddu patent will issue with claims that will completely dominate Raiche's machines, and means practically that Raiche's machine must be abandoned and that all the money that has been spent on it lost."[60]

The discouragement of the development of inventions on account of the delay in granting patents retards technical progress and therefore economic welfare.

Inefficient and Unethical Attorneys

A patent attorney should possess the two cardinal qualities of ability and honesty. He should advise the inventor not only as to the patentability of the invention, but also as to its probable commercial value. The relationship between them is necessarily one of trust and confidence. The inventor, ignorant of patent law and procedure, must rely upon the ability and integrity of the attorney. It is important not to obtain a patent for its own sake, but to procure one which will secure real protection. The Patent Office in its rules of practice recommends the employment of "a competent patent attorney, as the value of patents depends largely upon the skillful preparation of the specification and claims."[61]

The Supreme Court has emphasized the need of an experienced patent lawyer, as follows: "The specification and claims of a patent, particularly if the invention be at all complicated, constitute one of the most difficult legal instruments to draw with accuracy, and in view of the fact that valuable inventions are often placed in the hands of inexperienced persons to prepare such specifications and claims, it is no matter of surprise that the latter frequently fail to describe with requisite certainty the exact invention of the patentee, and err either in claiming that which the patentee had not in fact invented, or in omitting some element which was a valuable or essential part of his actual invention."[62]

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[60] Oldfield Hearings of 1914, Part 8, p. 149.

[61] No. 17.

Patent law practice is technical and intricate; it requires a knowledge not only of law but of the arts and sciences as well. Nevertheless, it is comparatively easy to qualify as a registered patent attorney; and therefore some of the patent attorneys may be incompetent. An attorney may succeed in obtaining a patent on an invention that he does not understand and therefore cannot clearly describe. Incompetence on the part of the lawyer, even though his intentions are of the highest order, is likely to mean a vague or narrow patent. The able lawyer should secure claims which are clear and broad, and the ability to do this requires a knowledge of the "prior state of the art."

Some patent solicitors strive for "quantity production"; in other words, they are more interested in securing fees than in giving proper service to their clients. They may charge exceptionally low fees, and recommend the securement of the most trivial patents, those covering the most minute features or improvements. Moreover, the patent attorney, in an effort to rush patent applications, may agree to cancel claims to which objections have been made by the Patent Office; and may, therefore, secure a patent which contains only narrow and insignificant claims, one that fails to protect the essence of the invention. It should be stated in this connection that the Patent Office objects to one or more claims of about ninety per cent of the applications for patents. Furthermore, the attorney, in an attempt to secure a large number of patents for clients, may recommend, in spite of foreign laws concerning fees and compulsory working of patents, that they take out patents in other countries. Many of these foreign patents are abandoned within a few years, but this is apparently of no concern to the unethical lawyer who has already received his fees. The Commissioner of Patents, in discussing this situation, declared that innocent inventors are bled financially.[63]

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[62] Topliff v. Topliff, 145 U. S. 156, 171 (1892).

The advertising standards of several lawyers have been subjected to adverse criticism. Until recent years, and even now to some extent, it has been the practice of some of them to advertise "free searches." Several years ago an inventor sent the duplicate of a patent already granted to him, to six Washington attorneys who advertised free searches. Every one of them replied that not only did they consider the construction patentable, but that nothing similar had ever been patented. Some even commented on its originality.[64] One firm of patent attorneys stated in a form letter of April 12, 1921, in answer to a general inquiry of the author, that "if you have invented something, you should without delay send us a description of it, together with a sketch, photograph, or model, in order that we may report regarding the patentable nature of your invention," and later added, "remember that our opinion will cost you nothing." Some advertise a contingent fee system like that prevailing in personal injury cases, namely, the payment of fees in case the patent is obtained. This arrangement serves to stimulate the attorney in securing patents, however worthless, so as to collect the fees. Others cater to rejected applications. One of them states that he makes a specialty of handling "cases which have been unsuccessfully conducted either by the inventor or by other attorneys." Other aspects of unethical advertising by patent lawyers include stories of fortunes made by inventors, and a list of inventions wanted. The Commissioner of Patents, in 1912, stated, "The character of this advertising in many instances is such as to cause the unwary inventor to believe that great inducements are held out to him for simple inventions, and he is gradually lured on until considerable sums of money have been obtained from him without any adequate return of services." [65]

A few patent attorneys issue "confidential invitations to subscribe to business ventures based on patents. One attorney, in a form letter of August, 1921, addressed to the author, held out such an opportunity. "Has it ever occurred to you that the safest—the surest—way to make money out of an idea is to *get in on the ground floor* of a new concern that is marketing, or is about to market, some invention of *unusual* value?" Further, "Every once in a while my large practice brings me into contact with a most unusual opportunity," etc. The invitation was limited and exclusive in character, as the following would suggest:

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[63] Nolan Hearings of 1919, p. 231.

[64] H. C. Thomson, *The Story of My First Invention*, p. 6.

[65] Oldfield Hearings of 1912, No. 1, p. 7.

> "This letter is being sent to several hundred selected clients and others whose names have been given to me as being progressive business men to whom an unusually good proposition will appeal. If replies received justify it, I will list those interested and lay before them for consideration each good proposition as it comes to my attention. A few men with a few dollars can do nothing. A thousand men with only $100 each can make industrial and commercial history—and money for themselves. That is the whole story in a nutshell.
>
> "Will you be one of the thousand? Will you listen to, and consider an unusual opportunity when it knocks at your door? If so, fill out the enclosed card, sign it and drop it in the mail—it's one of Uncle Sam's so it doesn't even need a stamp. Of course, it won't put you under any obligation, and you needn't invest a cent unless you like the proposition I may submit to you.
>
> "If you are NOT interested, say so on the card and let someone else have the chance.
>
> "Will you please let me hear from you IMMEDIATELY?"

A recent assistant commissioner of patents described the exploitation of the patent system—and of the innocent inventor particularly—by the unethical patent attorney, in the following terms: "The present evils are glaringly apparent. Make-believe inventions used for promoting stock-selling schemes are usually carried on by the aid of unscrupulous patent attorneys. These should be vigorously searched out and eliminated. Great numbers of incompetents who have prostituted a profession into a mere business of fleecing the innocent swarm about the Patent Office offering alluring prospects to useless ingenuity. When they catch the innocent they file imperfect papers; they prosecute with the sole view of getting a patent quickly without regard to its value; they habitually induce inventors to file expensive foreign applications before investigation as to whether there is an invention present. They encourage efforts in wrong directions, promote the patenting of immature ideas, waste the money and energy of inventors, all for the sole purpose of swelling their own profits."[66]

UNSCRUPULOUS PROMOTION OF PATENTS

Patent attorneys, as already suggested, may exploit their profession by trying to promote patents. Other individuals of a more questionable sort may, in pretense of promoting patents, fleece the inventor and others. They offer to secure purchasers of patents, and the inventor pays a fee for a service which he fails to receive. Another plan of unscrupulous promoters is to supply capital through stock-selling schemes, and to take some thirty per cent as their share for their services. At about the time when the whole scheme is about to fail the promoters disappear and the inventor must meet the responsibility alone. Some of these get-rich-quick schemes have deceived leading inventors, and netted the promoters thousands of dollars.[67] Inventors themselves may play the rôle of the dishonest promoter. In many cases their stock in trade consists of elaborate plans and specifications, which they use as a bait, but which they know will never be developed.[68]

EMPLOYER-EMPLOYEE CONTRACTS

Employees, as a general rule, are entitled legally to their own inventions and the patents which cover them. This right may, however, be modified by contract. Many manufacturers of patented products require their factory or mill employees to agree that any inventions which they may make during their term of employment shall be assigned to the employer.[69] The employee applies for the patent and assigns it to the employer, apparently receiving, in most instances, no substantial remuneration. This arrangement has the effect of granting a seventeen year monopoly to a manufacturer who has expended nothing in securing the invention. It also deadens the incentive to invent on the part of the employee. The patent system furnishes no direct stimulus to the employee. The employer would receive the same ideas from the employee, in the absence of patents, by requiring him to sign a contract to the effect that all improvements conceived by him must be transmitted to the employer.

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[66] Nolan Hearings of 1919, p. 278.

[67] Edelman, *Inventions and Patents,* p. 150.

[68] Avram, *Patenting and Promoting Inventions,* p. 23.

An electrical engineer who entered into a contract of this sort with the American Telephone and Telegraph Company as a condition of employment, wrote to the Oldfield Committee in 1912 that all such contracts tend to discourage invention by removing the incentive to invent.[70] A member of Congress from Massachusetts, who appeared before this committee, expressed a similar thought and indicated the prevalence of these contracts. He stated that the employees of the Crompton Knowles Loom Works, the Draper Company, and the United States Envelope Company assigned the patents on their inventions to their respective employers, without receiving any remuneration for them.[71] Many other corporations, such as the General Electric Company, Eastman Kodak Company, and the United States Rubber Company, maintain similar contracts.

It should be added that this situation prevails to some extent as between the Government and its employees. Several of the Government departments, although they have not required their employees to assign their inventions to the Government, have discouraged them from taking out patents. Some of the employees have voluntarily relinquished their patent rights to the Government. A law of 1883 provides that if an employee of the Government "would dedicate the free use of his invention to the Government and the people of the United States, a patent would be issued to him without the payment of fees." As this provision eliminated "all hope of remuneration from the patent, both from its use by the Government and the public, inventors in the Government service have not generally resorted to it." This law is, in form, merely permissive, but a former Secretary of Agriculture attempted, in 1905, to make it compulsory in his department.[72]

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[69] Appendix VI contains a reproduction of one of these contracts. References to the legal rights of the employer and employee with respect to the inventions of the latter are: *Patents,* Machinery's Reference Series, pp. 29-31; Prindle, *Patents as a Factor in Manufacturing,* pp. 84, 85, 88, 91, 92; Edelman, *Inventions and Patents,* pp. 125-127; Mastick, "Contractual Rights Relating to Letters Patent," *Journal of Industrial and Engineering Chemistry,* Vol. 7, 1915, p. 984.

[70] Oldfield Hearings of 1912, No. 26, p. 47.

[71] *Ibid.,* No. 24, p. 23.

Remuneration or recognition—in short, reward of some sort—is necessary to stimulate inventors. Any contract or law which deprives them of reward discourages invention and therefore should be condemned.

Continuation of Monopoly after Expiration of Patent

A monopoly based upon a patent may, in effect, continue after the expiration of the patent. This is especially true of an advertised product of personal use which bears a trade-mark. For seventeen years a trade-mark may be associated with the patented product; the one may suggest the other so invariably that they become practically synonymous in the mind of the consumer. After the expiration of the patent, therefore, the monopoly of the product based on a patent tends to pass over into a monopoly of the same product based on a trade-mark. The same product manufactured by others suggests imitation and inferiority. Aspirin, for example, was advertised as patented and as Bayer's aspirin prior to the expiration of the patent covering the product. The long association of only one trade-mark, that of Bayer and Company, with aspirin enables this company to continue the domination of the market in this product. Other companies have manufactured aspirin since the expiration of the Bayer patent, but most people who purchase this product insist upon Bayer's for the reason stated.

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[72] House Report (Misc. Sp.) 5374, 60th Cong., 1st Sess., p. 7.

Conclusion

Litigation, delay in granting patents, and contracts which compel employees to surrender their inventions to employers may be used to further the designs of industrial monopolies based on patents. Moreover, litigation, delay in granting patents, inefficient attorneys, and unscrupulous promotion increase the risk connected with the development of inventions, and therefore encourage the suppression of patents. Lastly, all the evils described in this chapter discourage inventors and constitute a great economic waste, as explained in the next chapter.

CHAPTER VIII

DISCOURAGEMENT OF INVENTORS

There are several ways in which the inventor attempts to secure his reward. He may sell his patent rights to others either for a lump sum or for royalties; the former basis of compensation is much more frequent than the latter. He may develop his invention either with his own capital or partly, if not entirely, with the capital of others; usually it is necessary for the inventor to seek outside sources of capital. Although a considerable number of corporations have built on the inventions of their officers, a very small percentage of the patentees manufacture their own inventions.[1] The majority of patented inventions are neither sold to others nor developed by the inventors; they are not developed at all.

Extent of Failures of Inventors

Inventors, patent attorneys, and others who have appeared before Congressional committees on patents and who have discussed the patent problem in the press, agree almost unanimously that inventors as a group are ultimately discouraged rather than encouraged by the present patent situation. Only about one per cent of the inventors whose names are recorded in the Patent Office are financially successful.[2] Dr. Baekeland once stated, "I know many inventors, and I can tell you that very, very few of them ever obtained any important sum of money by their inventions, as such."[3] Thomas A. Edison said, "Unhappily there is absolute certainty that under our present patent laws the poor devil of an inventor would never receive any reward."[4] Assignees have made practically all the money that has been derived from patents.[5] Admiral Fiske stated that "many an inventor has endured a purgatory while trying to get a hearing for his invention, and yet been wholly forgotten when it was finally adopted."[6] Some of our greatest inventors, such as Whitney and Goodyear, have failed to receive the rewards which they richly deserved. The Commissioner of Patents, in 1858, said of Goodyear, "No inventor probably has ever been so harassed, so trampled upon, so plundered by that sordid and licentious class of infringers known in the parlance of the world as 'pirates.'" He died worn out with work and disappointment.[7] Almost endless evidence of this kind could be adduced to show the conspicuous failure of our patent system in enabling our inventors to secure the rewards which the framers of the Constitution intended to provide.

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[1] Oldfield Hearings of 1912, No. 10, pp. 19-20; No. 4, p. 11.

[2] *Ibid.*, No. 24, p. 4.

[3] *Ibid.*, No. 4, p. 35.

CAUSES OF DISAPPOINTMENT OF INVENTORS

The explanations of this failure, suggested in the foregoing chapters, may be grouped as follows: demerits of inventions and patents; monopoly of patents; unfair competition; suppression of patents; other evils of the patent system, such as employer-employee contracts, delayed applications, unscrupulous promotion, inefficient and dishonest patent attorneys, and litigation; lack of capital; nature of invention; and characteristics of the inventor. These will be considered in greater detail in the order indicated.

Demerits of Inventions and Patents. Inherent technical defects of inventions and patents explain the suppression of many patents, as previously noted, and also the disappointment of hundreds of inventors. The successful inventor must contribute something which is both profitable and advantageous to the public. He must be master of the art in which he is hoping to produce an improvement.[8] An invention should be a better or cheaper way of accomplishing a result. An inventor to be successful should conduct a preliminary investigation as to the possible cost and sales of his invention. Frederick P. Fish, the "dean" of the patent bar, expressed the belief that four out of five inventions that are patented are for worse ways of doing something that is well done already. The man that makes that kind of invention usually does not recognize its defects, and charges its failure to others.[9]

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[4] *Literary Digest,* June 19, 1920, p. 114.

[5] Senate Document, No. 6, p. 17.

[6] Fiske, *Invention, The Master-Key to Progress,* pp. 308-309.

[7] P. G. Hubert, *Men of Achievement—Inventors,* p. 177.

Moreover, an invention may be so far ahead of the times that the term of the patent may completely expire before the public fully understands, adopts, or appreciates the invention.[10] Inventions must overcome habit, custom, prejudice, and indifference.[11] Draper, at one time president of the cotton machinery company which bears his name, said: "The introducer of a patented improvement not only has to encounter the competition of infringers, but he has to overcome the prejudices of the possible purchasers. The average man does not like to change a process or a machine that he is used to, any more than he likes to change the style of his clothing or the hours of his meals. He can be convinced of the necessity for change if there be sufficient proof of a profit; but his help also dislike to change their habits, and they are not so sure of sharing in the profit. Many a good idea is killed because the operatives will not assist in getting possible results from new machinery, and the very operatives who have become efficient by long practice with the old machinery are less likely to encourage the adoption of the new ideas. We have found that we sometimes get better results with new machinery where help is used that never knew the old machinery. They have nothing to unlearn." [12]

The inventor working alone may be carried away by his ideas, and consequently the result of his efforts, though new and patentable, frequently cannot be reduced to practice. The inventions made by men lacking experience in operating the machines to which their inventions relate, must be modified by practical men, in most instances, before they can be utilized.[13]

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[8] Oldfield Hearings of 1912, No. 24, p. 5.

[9] Nolan Hearings of 1919, p. 63.

[10] Senate Document No. 6, p. 70.

[11] *Literary Digest,* June 19, 1920, p. 114.

[12] Draper, "Patents," *Proceedings of the Eleventh Annual Convention of American Cotton Manufacturers' Assn.,* 1907, p. 186.

An invention which compares favorably with competing products from the standpoint of utility cannot be successfully introduced in many cases because its price is considered too high. Furthermore, if the purchase requires the expenditure of a considerable amount of money, the prospective buyer may want assurance that his competitor will not be able to secure the invention on more favorable terms and that the seller will not later offer a better model to his competitor.[14]

The disappointment of the inventor due to the apparent demerits of his invention has been described in a picturesque fashion by Sir W. Petty:

"Note, by the way, that few new Inventions were ever rewarded by a Monopoly; for although the Inventor oftentimes drunk with the opinion of his own merit, thinks all the world will invade and incroach upon him, yet I have observed, that the generality of men will scarce be fired to make use of new practices which themselves have not thoroughly tried, and which length of time hath not vindicated from latent inconvenience; so as when a new Invention is first propounded, in the beginning every man objects, and the poor Inventor runs the Gantloop [gauntlet] of all petulant wits; every man finding his several flaw, no man approving it, unless mended according to his own advice. Now not one of an hundred outlives this torture, and those that do are at length so changed by the various contrivances of others, that not any one man can pretend to the Invention of the whole, nor well agree about their respective shares in the parts. And moreover, this commonly is so long a doing, that the poor Inventor is either dead, or disabled by the debts contracted to pursue his design; and withal railed upon as a Projector, or worse, by those who joyned their money in a partnership with his wit; so as the said Inventor and his pretences are wholly lost and vanisht." [15]

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[13] *Ibid.*, p. 189.

[14] *Ibid.*, p. 186.

The patent, regardless of the merit of the invention itself, may be well-nigh worthless because of neglect in investigating the patent situation. A patented invention of a basic nature may prevent the exploitation of the improvement patent. The claims in the patent may be narrow and therefore easily evaded by means of alternate patents. Further, it may be vague and weak because, when granted, the invention was in a nebulous state.[16]

Worthless inventions and weak patents must fail, of course, to bring the inventor any financial return. On the other hand, many a patentee—the proverbial poor inventor especially—has received little or nothing for meritorious inventions and for reasons which will now be examined.

Monopoly of Patents: (*a*) *Control of Basic Patent.* An individual or company may control the basic and pioneer invention to which an improvement relates. The improvement cannot be used legally in conjunction with a patented basic invention without the consent of the patentee. In other words, those who improve basic inventions protected by patents must depend upon the latter in order to derive any return from their inventions. The owner of a basic patent, therefore, has a considerable advantage in bargaining for patents which cover improvements on his invention. This situation in turn prevails in the case of slight improvements of important improvements, if it is assumed again that both are covered by patents. Therefore, any individual or concern which has a pioneer and basic patent in the beginning and which acquires important improvement patents subsequently, is in a position to drive hard bargains in acquiring slight improvements from others. It enjoys, in other words, a purchasing monopoly as far as one particular field of invention is concerned.

b. Patent Trusts. Many corporations, as shown in previous chapters, are industrial monopolies based largely upon the control of many patents. Each one of them represents practically the only market for the patents of outside inventors—i.e., enjoys a monopoly in the buying of patents. The outside inventor of shoe machinery, for example, must perfect an entire line of shoe machinery and secure sufficient capital to engage in its manufacture, or sell his patents to the United Shoe Machinery Company. The latter is by far the more likely to happen. In fine, there is practically only one purchaser of patents relating to shoe machinery while there may be many prospective sellers of them. Likewise, patents pertaining to cotton machinery must be sold, if at all, to the Draper company.[17] The General Electric and Westinghouse Electric Companies control the situation so far as the purchase of most electrical patents is concerned. From 1896 to 1911 these two companies maintained a patent purchasing agreement to the effect that neither one would acquire a patent which would tend to injure the other; and many inventors, consequently, became embittered because they could not find a market for their patents.[18]

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[15] C. H. Hull, *Economic Writings of Sir W. Petty,* Vol. I, pp. 74-75.

[16] The worthless invention and the weak patent as factors in the promotion of new enterprises are discussed by A. S. Dewing, ***Corporation Finance,*** pp. 52-53.

President Taft, in his message to Congress in 1912, stated that "large corporations, by absorbing patents relating to particular arts, have succeeded in dominating entire industries, and the only market to which an inventor of improvements upon such machines may offer his patents for sale is to such corporations." A corporation of this sort will pay for a patent according to the protection that its ownership will give to a pre-existing monopoly.[19]

Mr. Brandeis, now a justice of the Supreme Court, said before the Oldfield Committee in 1912:

"These great organizations are constitutionally unprogressive. They will not take on the big thing. Take the gas companies of this country; they would not touch the electric light. Take the telegraph company, the Western Union Telegraph

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[17] Draper, "Patents," *Proceedings of the Eleventh Annual Convention of American Cotton Manufacturers' Association,* 1907, p. 185.

[18] Oldfield Hearings of 1912, No. 4, pp. 5, 6, 16.

[19] Oldfield Report of 1912, p. 7.

Company; they would not touch the telephone. Neither the telephone company nor the telegraph company would touch wireless telegraphy. Now, you would have supposed that in each one of those instances those concerns if they had had the ordinary progressiveness of Americans would have said at once, 'We ought to go forward and develop this.' But they turned it down, and it was necessary in each one of those instances, in order to promote those great and revolutionizing inventions, to take entirely new capital."[20]

The Inventors' Guild, an association of eminent inventors, has stated, "It is a well-known fact that modern trade combinations tend strongly toward constancy of processes and products, and by their very nature are opposed to new processes and new products originated by independent inventors, and hence tend to restrain competition in the development and sale of patents and patent rights; and consequently tend to discourage independent inventive thought, to the great detriment of the nation, and with injustice to inventors whom the Constitution especially intended to encourage and protect in their rights."[21]

c. Continuity of a Patent Monopoly. Moreover, the independent inventor may be discouraged by the continuity of an existing monopoly based on patents. In order to succeed, he must overcome what may be termed the prospective unprofitableness of capital and inventive effort. The mere size of a corporation which rests upon patents, together with the complexity of its organization, may well deter a poor inventor who would become a competitor. Its enormous plant, marketing organization, etc., suggest to him the impossibility of competing, and therefore the necessity of selling his patent at a price which it may dictate. Moreover, many inventions are complementary in nature; in short, a complete set must be furnished to users or else none at all. For example, the invention of a single new shoe machine, though of a most efficient type, would not find a ready market among shoe manufacturers, since they are interested in obtaining a complete line of shoe machinery. Even though the inventor could perfect a new, complete, and efficient line of machines, he would experience difficulty in introducing them. Manufacturers, employees, and others dislike to change machinery or anything else to which they are accustomed. They are naturally suspicious of anything which is new and prefer to let others give it the first test. Further, a large corporation having hundreds and even thousands of patents suggests trouble to those who would invade its territory. It bristles with patents which, like bayonets, point toward those who would enter the preempted field. It is often difficult to know the ground really covered by the expired and unexpired patents respectively; hence a long list of patents, however trivial in reality, may dishearten those who would become competitors.

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[20] Oldfield Hearings of 1912, No. 18, p. 12.

[21] Oldfield Report of 1912, p. 3.

A large corporation whose business rests largely upon patents is in a better position, through its professional inventors and other employees, to invent in an effective fashion. Their experience furnishes a background for intelligent procedure. As nothing succeeds like success, so nothing invents like invention. They are familiar with the product already patented, have excellent laboratory facilities for testing out their ideas, and in addition receive business-like advice as to what should be invented. Their efforts are directed along money-making lines.

This situation is in contrast to the disadvantages of the outside inventor with very limited means. He is not in a position to draw upon the experience of other inventors and the counsel of the engineer and the business manager; he seldom knows what has already been accomplished in the general field to which his invention relates, and usually lacks adequate facilities for making and testing his invention. He makes more mistakes in proportion to the inventive effort put forth, and in the end usually becomes one of many disappointed inventors.

Unfair Competition. The employment of unfair methods prevents the survival of the most efficient business unit, and tends to create monopolistic conditions and therefore to obstruct the exercise of initiative. It closes the field of opportunity and therefore may discourage the inventor as well as others. Exclusive arrangements of all sorts may deprive the patentee of a market for his invention. Thus, the attempt of the manufacturer to dictate the supplementary supplies for his patented product discourages attempts to invent better supplies. Litigation in the courts and interference proceedings in the Patent Office constitute one of the worst obstacles to the patentee of moderate means. One inventor stated before the Oldfield committee, "Invention and the manufacturer of patented inventions are being discouraged rather than encouraged. The discouraging influence is the fear of unjust, harassing, and enormously expensive litigation." [22] The enforcement of a patent in the courts according to Dr. Baekeland is subject to so many uncertainties, complications, delays, and to such enormous expenses, that the man with limited resources is at an inexpressible disadvantage.[23] Admiral Fiske, in describing the exploitation of the inventor, declared that in some instances wealthy manufacturers have stolen his invention, knowing that he was too poor to fight against them.[24] Other kinds of unfair competition described in a preceding chapter, like false marking and piracy of inventions, constitute obvious sources of discouragement to the patentee.

Suppression of Patents. A previous chapter has described the causes and extent of the suppression of patents. Inadequate finances of the inventor, the illegality of an unauthorized use of improvements in conjunction with patented inventions of a basic nature, and other factors may prevent the use and development of his invention, and explain his failure to receive any financial reward. Furthermore, suppression, even though the patentees receive handsome prices for their inventions, tends to discourage them. It tends to deaden their creative faculties, to smother the instinct of workmanship or contrivance. Those who justify the suppression of patents take little or no account of the inventor's happiness in seeing his invention in general use and the stimulation to additional inventive effort which he derives from it. Undoubtedly a part of the reward of the inventor, and especially of the great inventor, is psychological in nature; and the suppression of his invention, whatever the cause, prevents that reward, and therefore to that extent discourages him.

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[22] Oldfield Hearings of 1912, No. 15, p. 7; statement of A. C. Eastwood, President of Electric Controller and Mfg. Co., Cleveland, Ohio.

[23] *Ibid.*, No. 4, p. 34.

[24] Fiske, *Invention, The Master-Key to Progress*, p. 309.

Other Evils of Patent System. As set forth in the last chapter, other abuses of our patent system dishearten the inventor. Contracts between an employer and his workmen by which the latter agree to assign their inventions to the former thwart the purpose of the patent laws. Delays in the granting of patents, especially if they arise from dragnet applications, may weaken or invalidate a patent previously granted and therefore may vitiate any investment in a business based upon it. Inefficient and unethical patent attorneys, who are interested in fees and not in the welfare of their clients, are responsible for many worthless patents and disappointed inventors. The sequel to this evil is the unscrupulous promotion of patents by which the unwary inventor pays dearly for having his hopes raised by the false representations of the promotor, only to be dashed to earth when the true facts are learned.

Patent litigation is the greatest curse to inventors. Granting the good faith and adequate finances of the contestants would not justify a modification of this statement. The evil effect of litigation, however, is intensified if one litigant is wealthy and the other poor. The testimony of various inventors may be offered to show their attitude toward patent litigation. Edison stated in a letter to the Oldfield committee: "The long delays and enormous costs incident to the procedure of the courts have been seized upon by capitalists to enable them to acquire inventions for nominal sums that are entirely inadequate to encourage really valuable inventions. The inventor is now a dependent, a hired person to the corporation. The administration of the law is the cause." [25] Dr. Baekeland stated before the same committee, "Woe, indeed, to the poor inventor who tries to enforce his rights against

[25] Oldfield Hearings of 1912, No. 23, p. 32.

wealthy infringers, aided by skillful lawyers; his well-engraved United States patent parchment may then become his certificate of entrance to the poorhouse or to the lunatic asylum. All this tends to discourage invention by independent individuals and paralyzes the stimulation of invention our Constitution intended to promote by the patent law."[26] Another inventor said that the Government, by means of a patent, gives the inventor "a very beautiful printed instrument, with a ribbon and seal, and practically tells him to go out into the world and, if it is of value, to fight off pirates who will help themselves to it."[27]

Lack of Capital. The preceding discussion of the factors which discourage the inventor suggests the necessity and at the same time the difficulty of securing adequate capital for defending a patent and developing an invention. For example, the extent of invalid patents requires a complete search of the legal merits of a patent prior to its development. The cost of making this search is often prohibitive.[28] Large capital is necessary not for the development of the invention, but to protect it.[29]

However, even though these weaknesses in our patent system did not exist, it would still be true that a new invention requires an enormous amount of capital for developmental purposes. The theory of the patent system, more than a century ago, was that the inventor himself would make and sell his invention. It was a time of relatively simple tools and devices, the production and sale of which required no great outlay of capital. Large scale production and a national market, however, make this theory inapplicable to-day. Modern methods of manufacturing and marketing a new product, and especially a complicated one, demand an initial outlay of large proportions. Machinery for making the invention must be perfected and its introduction to the public requires salesmen and advertising. Moreover, those who introduce patented machinery are compelled by the very haste of its evolution, continually to modify it.[30] It costs $200,000 to make the tools and machines that are necessary to put a typewriter on the market, at a salable price, even before any advertising is done.[31] Dr. Baekeland said that he has been personally identified with enterprises which could only begin to work an invention after investing to the extent of $1,200,000 for plans alone.[32] The alliance between the inventor and the capitalist is more important now than formerly because of the increasing complexity and cost of modern devices.[33] The capitalist furnishes the power of waiting, an indispensable function in the development of an invention. One inventor has expressed the opinion that few patents of merit have ever been brought to a marketable condition, on an average, in less than ten years.[34] In fact, inventors often lose possible profits because they are not willing to wait for slow returns.[35]

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[26] Oldfield Hearings of 1912, No. 4, p. 34.
[27] *Ibid.,* No. 24, p. 10.
[28] Nolan Hearings of 1919, p. 77.
[29] Oldfield Report of 1912, p. 23.

The inventor and others do not appreciate, in many instances, the contribution of capital in making inventions available for daily use. The inventor, in order to receive his fair share, must offer an attractive proposition to the capitalist.[36] The patentee may welcome the coöperation of the capitalist and agree to give him a fair share of any return from his invention and still be unable to secure sufficient capital for its development. The patentee is usually the proverbial poor inventor and therefore must seek outside sources of capital. Banks refuse to finance a new invention of any sort, for they cannot afford to lend money with mere possibilities as security. The patentee may either borrow money from his friends and other individuals or sell an interest in his invention to them. But the uncertainty of any new invention and the defects of our patent system deter them in advancing funds. The same reasons often explain the difficulty in securing any appreciable remuneration from the outright sale of patents.[37]

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[30] Draper, "Patents," *Proceedings of the Eleventh Annual Convention of American Cotton Manufacturers' Association*, 1907, p. 192.

[31] Thomas, *Industry, Emotion and Unrest*, p. 5.

[32] Oldfield Hearings of 1912, No. 4, p. 42.

[33] F. W. Taussig, *Inventors and Money-Makers*, p. 41.

[34] Oldfield Hearings of 1912, No. 4, p. 24.

[35] Draper, "Patents," *Proceedings of the Eleventh Annual Convention of American Cotton Manufacturers' Association*, 1907, p. 191.

[36] Oldfield Hearings of 1912, No. 18, p. 10.

Insufficient capital, to repeat, explains the failure of many patentees to secure any appreciable reward from their inventions. The Commissioner of Patents reported, in 1872, "It is a fact familiar to all who have given the subject-matter any considerable attention that a very large proportion of the more valuable inventions are assigned in their infancy for trifling considerations, because of the indigent circumstances of the patentee." [38]

The importance of capital, as indicated, tends to direct the efforts of the poor inventor along those lines which require a minimum of capital.[39] As the editor of the *Inventors' Outlook* said, "The inventor of a fascinating toy or a puzzle or some other device of a transient character has less economic difficulties to overcome than the inventor of a new art or a vital improvement in an old art, which greatly widens the social horizon or vastly enriches the social domain. That this should be so is at once a great tragedy and national problem." [40]

Nature of Invention. Invention represents a growth, a prolonged and persistent effort by many individuals. There is a period of conception, a period of development, and a period of achievement. These periods may be separated by many years.

Those who conceive and develop an invention do not receive, as a rule, their fair share of recognition and remuneration. On the other hand, those who manufacture and sell the invention, adding perhaps some slight improvements, obtain the lion's share of the reward. As Admiral Fiske has said, "An invention that may have cost its creator the toil and struggle of a lifetime may not gain success simply because of some existing unfavorable conditions of some kind. Suddenly the conditions become favorable. John Doe takes advantage of all the work that other men have done, adds some slight improvement, achieves 'success' and dons the laurel wreath." [41]

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[37] Nolan Hearings of 1919, p. 69.

[38] Senate Document No. 6, p. 17.

[39] One inventor stated that "the man who starts in the development of inventions may sometimes be fortunate in having a hook and eye or something else which is not very elaborate to build, or which can be readily exploited, with reasonable gift of gab; but if it is a thing that is complicated, or which trenches upon existing situations, he has a long and tedious fight ahead of him, and most inventors go down."—Nolan Hearings of 1919, p. 141.

[40] Oldfield Hearings of 1912, No. 6, p. 18; also see *Ibid.,* No. 14, p. 9.

Moreover, inventions which appear unrelated are often complementary to each other. Every great invention presupposes other inventions; the one would be impossible without the other. The airplane waited upon the internal combustion engine. The inventor and maker of the boring machine enabled Boulton and Watt in 1776 to bring their steam engine to the point of practicability.[42] Those who lay the foundation of a great invention may be ill rewarded and soon forgotten. We hear of the inventors of the telephone and the airplane, but not of the inventors of machines and tools which made possible the manufacture of the telephone and the airplane.

Moreover, environment in the form of inventions, scientific discoveries, etc., determines to a large extent the direction of inventive endeavors. Two or more individuals, therefore, may conceive a new invention approximately at the same time, but only one of them receives a patent.

Characteristics of Inventor. The disappointment of the inventor, and especially of the great inventor, may arise from his personal characteristics. The mechanical genius is not likely to be a capable organizer and manager.[43] The great inventor, like the artist, is usually so absorbed in his thoughts that he cares but little for material gain.[44] Again, an inventor may be eccentric because of the very qualities that make him an inventor. He is apt to overestimate the importance of his invention and therefore to become the victim of bitter disappointment when his exalted hopes are shattered. Lastly, the temperament of the inventive genius yearns for a just valuation of his contribution to the social welfare. Disappointed and embittered, he may very appropriately repeat the words of Dickens's poor inventor: "Is it reasonable to make a man feel as if, in inventing an ingenious improvement meant to do good, he has done something wrong? How else can a man feel after he is met with difficulties at every turn? And look at the expense, how hard on me, and how hard on the country, if there is any merit in me (and my invention is took up now, I am thankful to say, and doing well), to put me to all that expense."[45]

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[41] Fiske, *Invention, The Master-Key to Progress,* p. 217.

[42] Thompson, *The Age of Invention,* pp. 184, 228.

[43] F. W. Taussig, *Inventors and Money-Makers,* pp. 38-39.

[44] Fiske, *Invention, The Master-Key to Progress,* p. 309.

EFFECT OF DISCOURAGEMENT

Retardation of Inventions. The obstacles which may greet the inventor at every turn encourage him to keep his invention secret. The likelihood of interference proceedings and of subsequent litigation especially deters the poor but intelligent inventor in taking out a patent. Thomas A. Edison stated in 1912 that "the administrative and judicial processes are discouraging inventors and to-day are driving the best of them into the adoption of secretly worked machinery and processes."[46] Many inventions remain under cover awaiting the time when the inventor can secure capital.[47] Dr. Baekeland once said, "When an inventor asks me whether he shall take out a patent in the United States I tell him, 'Have you got the money to maintain your rights and to defend them in case of infringement? If not, do not lose any time or money in taking out a patent: keep the matter secret.' I did so myself. My first successful invention here in this country was a new photographic process, called Velox paper. At that time I was not rich enough to take out a patent, and to defend it at the same time. I knew that my competitors would have swamped me by infringing the patent, and there would have been very little chance of my defending my rights. So I practiced it secretly, and after I made business a success, then I sold out to a large corporation at my terms." [48]

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[45] Dickens, "A Poor Man's Tale of a Patent" (one of the *Christmas Stories),* Macmillan edition of 1896, p. 64.

[46] Oldfield Hearings of 1912, No. 23, p. 32.

[47] *Ibid.,* No. 24, p. 24.

Inventions which represent either a process of making something, or a machine the product of which can be sold, offer the greatest temptation to infringers. As one inventor has remarked, "A man may use your process and make goods and sell them, and the goods themselves will not show that the patent is infringed." [49] On the other hand, inventions of this sort lend themselves most effectively to secrecy.[50] But these are becoming increasingly difficult to conceal, for the development in the art of chemical analysis enables others, in some instances, to ascertain the ingredients and perhaps the particular methods employed in making them.

The concealment of the invention may be short-lived intentionally, for example, until the basic and controlling patent expires.[51] In the interim the invention may be hidden away, or the application for a patent may be delayed until the opportune time for its issue. The inventor, of course, takes the risk of losing his invention, or rather, the ability to exclude others from it; for, if the secret leaks out, it becomes the property of all. Moreover, another person may conceive the same invention and secure a patent for it, in which instance he may exclude others, even the first inventor. Nevertheless it is a fact that many inventors are willing to assume this likelihood of loss rather than confront the evils of our patent system—interference proceedings, prolonged and expensive litigation, etc.

The discouragement of inventors finds expression in the relative decline of important inventions in the United States.

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[48] Oldfield Hearings of 1912, No. 4, p. 29. Another inventor, in 1919, stated, "I was asked to-day what advice I would give to a young man who had the idea of patenting some invention. I would be inclined to say to him that, under the existing conditions of the laws, with the restrictions which are imposed upon him, with the difficulty of developing and marketing his invention and the great difficulty of defending what the Government awards him nominally, he had better keep out of it." Nolan Hearings of 1919, p. 132.

[49] Oldfield Hearings of 1912, No. 23, p. 29.

[50] See Report, U. S. Industrial Comm., 1900, Vol. XIII, pp. 180, 203.

[51] Prindle, *Patents as a Factor in Manufacturing*, pp. 27-28.

Our patent system, as one inventor has said, has "succeeded in creating a condition which is highly unfavorable to invention, and one which is operating to hamper the development of the whole country. This is shown by the numerous inventions which are constantly coming from abroad, and which might have been invented by American inventors had they been properly encouraged by a modern and equitable patent system."[52] In this connection it was pointed out at the Oldfield Hearings that the Diesel engine, the internal combustion engines, the blast furnace, gas engines, and electric smelting furnaces were all invented abroad five years before ever used here.[53]

Economic Waste. The discouragement of inventors implies a great waste of our economic resources. That the revenue of the Patent Office equals or exceeds the monetary expense of supporting it is beside the point. Even a perfect patent system would entail a considerable drain upon our factors of production. The consequent encouragement of inventions would signify the dedication of a certain amount of labor and capital to them. Every man who gives himself to invention means one less man in the other fields of economic activity, and the laboratory material which he uses in his experiments, however well utilized, means a diminution in the total amount of capital goods. Moreover, the patent attorneys and their assistants, though performing an essential function, reduce the number of people engaged in other lines of activity. The same observation applies to the employees of the Patent Office. Finally, the patents, as legal monopolies, necessarily delimit the freedom of industrial activity.

But our patent system—the laws and the administration of them—is far from perfect. In addition to the economic costs already indicated as necessary for a *perfect* system, waste of labor and capital of even greater magnitude prevails under our *imperfect* system. Thousands of applications are rejected; and, as already shown, about nine-tenths of the patents, whatever the cause, do not yield enough to the original owners to cover the fees of the patent attorneys and the Patent Office. It is true that a part of this cost is inevitable. Inventions are necessarily experimental in character. That they blaze a way into the unknown implies a trial-and-error method and the emergence of many inventions that cannot be utilized successfully. Proudhon once said, "There is not an inventor, not a workman, who for one sane and correct conception, has not given birth to thousands of chimeras; not an intelligence, which, for one spark of reason, does not emit whirlwinds of smoke."[54] The pathway of the great inventions is strewn with apparent waste, which has demonstrated the failures and suggested the ultimate successes.

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[52] Oldfield Hearings of 1912, No. 24, p. 29.
[53] *Ibid.*, No. 9, p. 14.

Nevertheless, it seems that the extent of waste is unjustifiably great. Futile attempts to make inventions and little or no financial returns from the great majority of the patents indicate unnecessary waste. Most of the inventions, it seems, are not embodied in concrete products. Failures, repeated failures, blight the lives of many inventors. In addition, their misdirected and fruitless efforts are accompanied by the waste of capital in laboratories and elsewhere. Furthermore, a multiplicity of applications and patents—and be it noted that the United States has granted approximately one-third of all the patents in existence—means the employment of patent attorneys and their assistants in obtaining patents, fighting interferences, making searches with respect to questionable patents, etc. It necessitates the employment of hundreds in the Patent Office to examine the applications for patents, consider interferences, and attend to routine matters. The excessive number of patents, the extent of invalid patents, and the sundry attempts to exploit them, signify infringement suits and litigation concerning their validity. These legal contests require lawyers, experts, judges, and others. The time and energy of all these classes of individuals and the attendant waste of capital constitute an immense loss, which in large measure offsets the benefits accruing from the patent system.

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[54] Proudhon, *The Philosophy of Misery*, p. 278.

CHAPTER IX

REMEDIES

Social Cost of Patent System

The various evils which arise from our patent system may be grouped under four headings: namely, industrial monopoly, suppression of patents, discouragement of invention, and waste of economic resources. It has been pointed out that industrial monopoly may be attained by pooling the privileges of one or more patents, by acquiring practically all patents relating to a particular industry, and by unfair methods of competition. All the evils connected with industrial monopoly, such as higher prices and the encroachment upon economic opportunity, will not be expanded at this point. That the existence of such monopolies is an economic burden to society, and a very tremendous one, requires no proof. The suppression of patents means that the inventions to which they relate are not available. This failure to embody the inventions in concrete products deprives the people of their use, and to that extent defeats the purpose of the patent laws. Previous chapters, especially Chapter VIII, indicate the specific ways in which the various evils of our patent system discourage invention. It is believed that this discouragement is very appreciable, and therefore constitutes a liability in estimating the final effect of patents. Furthermore, our patent system involves a considerable waste of labor and capital. A multiplicity of undesirable patents signifies useless efforts of inventors, patent examiners, lawyers, judges, etc., and the impairment of capital. These represent social costs of the patent system which must be considered and eventually minimized if its net worth is to be raised to a maximum. Hence, in attempting to improve our patent system, the problem is to minimize in detail these four groups of evils: industrial monopoly, suppression of patents, discouragement of invention, and economic waste.

DEMAND FOR ABOLITION OF PATENTS

During the last quarter of the nineteenth century, particularly in the late seventies, strong opposition to the patent system developed, even to the extent of a demand, in some instances, for the abolition of the patent laws. Many individuals, especially the farmers in the Middle West, had been annoyed wrongfully, as they thought, by the harsh enforcement of certain patents, particularly of those relating to barbed wire.[1] In England, too, though somewhat earlier, many people urged the abolition of patents as the "needful accompaniment and the complement of free trade," and for the "emancipation of British productive industry from artificial restraints." To this end, in Parliament and elsewhere "many arguments were brought forward, among which were the hindrances to trade when a manufacturer was prevented from adopting freely the latest knowledge in an industry; that owing to the mutual interchange of information, inventions are not solely produced by their nominal inventors, but are usually the joint production of them and their contemporaries; that, on a public demand arising, inventions will be forthcoming without patents; that manufacturers by the stress of competition are compelled to invent in order to keep abreast of the times; the rare spectacle of the inventor himself being benefited; the hardship upon the inventor who, anxious to perfect his idea, delays his application for a patent, and thereby permits a less conscientious inventor to anticipate him, perhaps by a day or two only; that inventors are a deluded race, and the law fosters their delusion; and—the argument of the great Brunel—the patent system has within it all the elements of a state-aided lottery."[2]

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[1] Fish, *Letters Patent in Relation to Modern Industrial Conditions,* Senate Document No. 225, p. 9.

[2] Martin, *English Patent System,* pp. 32-33. Also, see R. A. Macfie, *Abolition of Patents, Recent Discussions in the United Kingdom and on the Continent,* 1869; and R. A. Macfie, *Copyrights and Patents for Inventions,* "Patents," Vol. II, 1883.

These protests against the abuses and disadvantages of patents, though failing to abolish patents, resulted in a betterment of the patent laws, especially in England and other European countries. Another wave of opposition to the exploitation of our patent system appeared in 1912, after the mimeograph or Dick decision, which led to appropriate and wholesome provisions in the Clayton Anti-trust Act. However, as previously indicated, other evils connected with our patent system still remain and demand remedial action.

PROPOSALS FOR IMPROVEMENT OF PATENT SYSTEM

Destruction of Patent Trusts. Previous chapters describe the extent to which industrial monopolies are based upon the control of practically all patents relating to particular industries. The Sherman and Clayton anti-trust laws should be applied to them as to other monopolies. In addition, the existence of a monopoly of this sort should furnish a defense for the infringement of its patents; in fact, their cancellation deserves favorable consideration. The restoration of competition would remove some of the worst abuses of our patent system. The evil of industrial monopoly *per se* would cease, and invention would be encouraged to a greater extent. Competition between different companies in the purchase and lease of patents would develop. In short, the inventor would have a real market for his patents instead of one limited, as in some industries to-day, to a single corporation as a possible purchaser. For example, the owner of an improvement patent on shoe machinery, after substantial competition in this field arises, would receive bids for his patent from several companies instead of one; in other words, in disposing of it, he would be in a position as favorable as that of the owner of an improvement patent on a typewriter, phonograph, safety razor, or watch, fields in which competition already prevails. Unfair competition, born of the desire to create or maintain monopolistic conditions, would tend to disappear. No concern would suppress patents—whether good, bad, or indifferent—as an incident to the control of patents for preventing competition. The purchase and lease of other patents would be limited to the attempt to improve a particular product, as is true today of typewriter, phonograph, and other companies; therefore only the inferior patents, if any, would be discarded. Also, competition would decrease the extent to which important patents are now suppressed owing to the lack of a market for them. Moreover, it is believed that the destruction of industrial monopolies would reduce the prevalence of that form of employer-employee contracts which binds the latter to surrender inventions to the former; and it would lessen other abuses of our patent system.

Less Litigation: (*a*) *Decrease in Number of Patents.* Multiplicity of kindred patents, as previously explained, leads inevitably to infringement suits. The number of patents granted by the United States is growing rapidly, faster than our population or industries. One should not be misled, however, into thinking that the inventive and industrial progress of a nation can be measured in terms of the mere number of patents, for many of them represent little manifestation of inventive genius. Fewer patents and better patents should be the slogan in the administration of our patent laws.

The first suggestion for reducing the number of patents is to increase the difficulty of securing them. Claims should be broader and fewer in number; every claim of a patent should be more fundamentally differentiated from the claims of other patents. The realization of this proposal would require greater strictness and efficiency in the administration of the patent laws, and therefore more employees in the Patent Office.

A second remedy would be the assessment of yearly fees upon outstanding patents, the amount of which might increase with the age of the patent. This would lead to the abandonment and therefore the cancellation of worthless, alternate, obstructive, and other patents of an undesirable sort. The present situation would be simplified in that the number of patents would be reduced, and the likelihood of litigation decreased.

b. Validity of Patents. The means of making our patents valid are suggested by the causes of invalidity of patents.

First and most important, the patents should be examined more thoroughly, and hence there should be more patent examiners, higher salaries for them, and better facilities with which to expedite their work.

Further, it is desirable that effective publicity be given to every application before the issuance of the patent. The invention in connection with which a patent is applied for should be publicly announced so as to encourage any possible objections to the granting of the patent. The subject matter may be one of public use but of which the Patent Office has no record, in which case those who already use the alleged invention would object to the application. Moreover, the subject matter may have been covered partly or entirely by other patents, and hereupon the patentees would voice their objections. The invalidity of many patents to-day is due to the inability of the Patent Office to ascertain prior use or description of the invention. Publicity prior to the issue of a patent, for perhaps two months, would partly remove one of the causes of invalid patents, and therefore reduce the extent of litigation.

Moreover, it seems desirable to limit, perhaps to five years, the period in which to test the validity of a patent.[3] This provision prevails in Germany and other countries; it specifies that the validity of the patent cannot be brought into question after it has been in effect a certain number of years.

A reduction in the number of claims contained in patents would reduce the possibilities of conflict between patents, and therefore litigation. Although patents can apparently never be guaranteed by the Patent Office, the examination of applications should be so rigid that the issue of a patent would carry with it *prima facie* evidence of validity, and therefore a basis for a preliminary injunction in the event of infringement.

A general improvement of the patent situation so as to encourage the taking out of patents on processes, etc., now kept secret would tend to reduce the number of invalid patents, since the Patent Office would have a more complete record of what had been practiced in those fields to which invention relates.

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[3] Oldfield Hearings of 1912, No. 10, p. 24.

Finally, uniformity in the interpretation of patents by a court of patent appeals or some other high tribunal would settle questions as to the nature of patentability and infringement, and therefore would assist the Patent Office in granting valid patents.

c. *Assumption of Validity of Patents and Preliminary Injunctions.* At present one part of the Federal government, the Patent Office, grants patents to alleged inventors, whereas another branch of the government, the Federal court system, declares many of them invalid. In effect, the United States repudiates through its courts its action taken through the Patent Office. The courts, in view of the prevalence of worthless patents, refuse to assume the validity of patents, and therefore refuse to grant a preliminary injunction against an alleged infringer unless the validity of the patent has been established by the courts or by common consent. Satisfactory protection to patents makes it necessary to assume the validity of patents and to grant preliminary injunctions against alleged infringers thereof.[4] Thus, the burden of proof is now on the patentee, rather than on the alleged infringer as it should be. In short, the patentee must establish the validity of his patent before he can secure an injunction against the infringer, or collect damages from him. To justify this assumption of the validity of patents, it would be necessary to examine applications for them more thoroughly than heretofore. The scrutiny of applications is quite essential in that the present disrepute of patents from the standpoint of validity is the outgrowth of incomplete examination by the Patent Office. The justice of giving a patentee more adequate protection against infringement is well brought out by the question raised by a former commissioner of patents: "Why should the holder of a patent, which is presumptive evidence of a title, be liable to have his right called into question by every mere trespasser? Such a course is not permitted in relation with any other species of property."[5]

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[4] Oldfield Hearings of 1912, No. 23, pp. 33-34; No. 10, p. 40; House Document No. 1110, 62nd Cong., 3rd Sess., p. 208; Senate Document No. 6, p. 36.

President Taft in his message to Congress in 1912 stated: "Much complaint has been made that patents granted by the United States are not deemed *prima facie* valid by the courts, and that preliminary injunctions are granted only upon patents which have been adjudicated to be valid by the courts or those whose validity has been *prima facie* established by public acquiescence for a considerable period of time. It is urged that the laws should be revised in such a manner that the issuance of a patent by the United States will carry with it the *prima facie* force and effect of a valid patent, and the burden placed upon him who would infringe that patent to establish its invalidity, rather than, as at the present time, to require the patentee to establish the validity of his patent before obtaining a preliminary injunction or securing an award of damages for the intentional infringement of his patented invention."[6]

d. Cumulative Damages and Costs. To diminish litigation and also to discourage unfair competition in the form of intentional infringement of patents and malicious infringement suits, it is well to adopt the essence of the recommendation contained in the Patent Office Report of 1851-2:

"I would also recommend that, for the purpose of diminishing litigation, a system of cumulative damages and cumulative costs be authorized, depending upon the number of times a patent has been affirmed or invalidated before a court of competent jurisdiction. It is believed that such a system will, to a great extent, prevent calling the validity of patents in question for mere purposes of vexation, and will also check the bringing of suits upon invalid patents for the purpose of procuring unjust tribute through fear of litigation. No plan has occurred to me which I consider so well calculated to check unnecessary and vexatious litigation under patents."[7]

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[5] Report of Commissioner of Patents to Congress, 1856; also see Oldfield Hearings of 1912, No. 27, p. 97.

[6] House Document, No. 749, 62nd Cong., 2nd Sess.

[7] Patent Office Report, Mechanical, 1851-2, pp. 16-17. Also, see Oldfield Hearings of 1912, No. 15, p. 10.

An even more effective way of reducing this kind of litigation would be a more liberal use of the preliminary injunction as already described.

e. Court of Patent Appeals. Judicial decisions should be certain, speedy, and inexpensive. This canon of justice suggests the need of a higher court to which patent cases may be appealed from the circuit courts of appeal. Without such a tribunal the conflict among the lower courts as to the invalidity of patents, infringement, etc., will continue. The present situation, by which the same issue may be tried in two or more circuits—theoretically as many as nine—means extensive litigation, endless delays, and enormous costs. The creation of a higher court to unify the interpretation of the patent law is imperative. Such a court has been advocated by inventors, patent attorneys, and others.[8] Most of the proposals have centered around a so-called court of patent appeals, first suggested about twenty years ago. Taft's commission on economy and efficiency, which made a study of the Patent Office several years ago, asked those interested in patents to submit their views on the question of the advisability of creating a court of patent appeals, and the answers received indicated a practically unanimous opinion in its favor.[9] In 1917 the National Research Council appointed a patent committee for the purpose of studying the patent situation and proposing remedies. One of the results of its research was the recommendation of a court of patent appeals.[10]

The argument for a patent court which will reconcile the differences between the nine circuit courts of appeal is irrefutable. The Supreme Court, with an ever increasing number of cases before it, cannot be expected to review the patent decisions of the lower courts as it once did. Therefore, it seems that another court—one that is superior to the nine circuit courts of appeal—must be created. It would remove the conflicts now existing between the circuit courts of appeal.

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[8] House Document No. 1110, 62nd Cong., 3rd Sess., p. 204.

[9] *Ibid.*, p. 204.

[10] Nolan Hearings of 1919, pp. 4-8.

The Patent Commissioner in 1910 reported, "A decision involving the construction of a patent by the circuit court of appeals of one jurisdiction is effective only for that jurisdiction and has no legal effect in any other of the several circuits, except through comity. There have been in the past decisions rendered by several circuit courts of appeals which are directly opposed to each other."[11] Such a court, moreover, will make the patent decisions free from local sentiment. "The division of the circuit court of appeals into nine circuits has created nine courts of last resort for patent cases, all of equal dignity, none of them bound by the decision of any other, located in nine different parts of the country, each reflecting to a greater or less extent the local color of the sentiment of the community in which it is located, and hence want of uniformity."[12]

It seems likely that the creation of this court would mean fewer invalid patents. "The United States court of patent appeals when established would so simplify and settle the law as to greatly reduce the number of void patents issued, and would greatly reduce the number of cases in which infringement would not be found, because, the law once established, counsel would feel secure in advising clients not to bring infringement suits where they felt satisfied they could not succeed."[13] This court, by making more certain the rights of the patentee and the public, would foster inventions. In order to attach any value to a patent and encourage the development of the invention which it covers, there must be adequate and effective judicial machinery to furnish protection.

It is not necessary to discuss the details by which this court would be constituted. One aspect of the plan, however, deserves comment: namely, that the judges should be selected from other Federal courts in various parts of the country, and that the personnel should rotate. This would prevent the judges from becoming too technical and narrow. It might be stated here that one of the objections to interference proceedings in the patent office is the extent to which technical rules and other matters which only the skilled attorney can understand predominate. The shifting in the personnel of this court would ensure judges of a broad and fresh experience in other fields of litigation. They could or should be chosen with a view to their capacity for understanding mechanical and other matters pertaining to inventions and patents, as well as principles of law. One objection to this court is the inconvenience which would necessarily result from going to Washington or wherever the court might be located. This adverse reason applies to the Supreme Court as well, and therefore is insignificant.

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[11] Report of Commissioner of Patents to Congress, 1910, p. 11.
[12] House Report (Misc.) No. 2145, Vol. 1, 60th Cong., 2nd Sess., p. 2.
[13] *Ibid.*, p. 4.

f. Infringement Suit Only in One Circuit. A suit for the alleged infringement of certain claims of a patent should be allowed in only one judicial circuit. In other words, "prevent the bringing of infringement suits on the same claims of a patent in two or more of the several judicial circuits until the validity of the claims has been established and an injunction granted, after which suits for infringement may be brought in any or all of the several judicial circuits simultaneously or otherwise."[14]

g. Limitation of Right to Sue Users of Patented Article. A law should be passed to forbid the bringing of infringement suits against the users of patented articles until infringement by the manufacturer thereof has been definitely established.[15]

h. Miscellaneous. Attention might be directed briefly to a group of miscellaneous ideas with respect to patent litigation. It has been argued, for example, that the existing court fees should be reduced, and that more judges should be appointed to expedite cases.[16] The adoption of these two propositions should improve our patent system. Another proposal is that the government should assume all responsibility for the litigation which is necessary to defend patents against infringers because the patentee, in effect, agrees to disclose his invention to the public if the Government will exclude others from an unauthorized employment of it for 17 years. A fourth proposal, advanced in the light of the same general philosophy, is that no one should be permitted to question the validity of patents; in short that the Government should guarantee their "titles." This, in effect, would make the decision of the Patent Office final. A fifth proposal provides for the extension of the life of a patent equal to the time consumed by litigation concerning it. These third, fourth, and fifth proposals, however, present administrative difficulties which seem to take them beyond the realm of the practical.

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[14] Oldfield Hearings of 1912, No. 15, p. 10.

[15] Oldfield Hearings of 1914, Part 7, p. 142.

[16] Oldfield Hearings of 1912, No. 10, p. 24.

Prevention of Unfair Competition. Unfair methods of competition practiced in the name of patent rights will probably be curbed more and more as the activities of the Federal Trade Commission expand. In exercising its power to restrain the use of "unfair methods of competition in commerce," it has already ordered several concerns to "cease and desist" from unfair practices involving patents. The work of the Commission in building up higher standards of competition deserves sustained support.

Less Delay in Granting Patents. The desirability of less delays in granting patents, those arising from "dragnet" interferences especially, requires no comment. Several remedies have been proposed. One of them consists of reducing the period in which the applicant must reply to the actions of the Patent Office. In 1897 the time was changed from two years to one year, with little effect, however, on the extent to which applications drag along in the Patent Office. This change merely tended to double the amount of correspondence, and therefore the inconvenience of keeping a patent pending indefinitely. A reduction of the period from one year to a few months would likewise exert no considerable influence on the rate with which applications for patents are granted or rejected.

An excellent proposal is to issue a patent for a particular invention to the first individual who applies for it. Allowances would be made in cases involving fraud, etc. This would entirely eliminate interferences, and would be in keeping with the fundamental object of the patent laws: the immediate disclosure of the invention and therefore the promotion of the arts. The public is more interested in the invention *per se* than in the individual who first conceived it. Moreover, it is almost impossible in many instances to ascertain, on the basis of priority, to whom the patent should be granted. Many of our important inventions are conceived at practically the same time by individuals working independently of each other. An expedient procedure would be to award the patent to the first applicant. It might be desirable, in order to prevent individual instances of injustice, to permit the other inventor, as is done in Germany and other countries, to practice his invention without paying tribute to the one who secures the patent. The proposal to grant a patent to the first applicant has the approval of many inventors, patent lawyers, and others. Mr. Edison stated in 1912, "My opinion is that the first inventor who shall file a clear and accurate description of his invention, which the Patent Office shall find to be new, useful, commercially practical, and unknown before the date of filing, should have the patent." [17]

A proposal which supplements the preceding one is to let the patent start at the date of filing. Allowances would be made for those delays not attributable to the applicant. It would be to the interest of an inventor, therefore, not only to file an application for a patent at the earliest date possible, but also to secure his patent as soon as possible. Another remedy is to reduce the number of possible appeals in the patent office.[18]

Higher Standards of Patent Attorneys. Within recent years, the Patent Office, aided by laws passed by Congress, has somewhat raised the standards of patent attorneys. By an act of Congress passed April 27, 1916, "it is made unlawful for any attorney practicing before any of the departments of the Government to use the name of any officer of the Government in advertising his business."[19] In 1918 the Patent Office added an amendment to one of its rules to the effect that every registered patent attorney must "submit to the Commissioner of Patents for approval copies of all proposed advertising matter, circulars, letters, cards, etc., intended to solicit patent business."[20] The Patent Office has indicated, first, what might be set forth in advertisements; second, what should not be included.[21] The Commissioner of Patents reported in 1919 that "misleading advertisements and circulars are doubtless still published, but a healthy sentiment against them has been established among advertising registered attorneys, which I regard with the greatest satisfaction."[22] The Commissioner of Patents may disbar any patent attorney "shown to be incompetent or disreputable."[23] A violation of either the law or the rule just noted, is sufficient ground for disbarment. In 1919 the Commissioner of Patents reported that "the standard for admission to practice before the Patent Office is being strictly maintained," and later added the significant paragraph:

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[17] *Ibid.*, No. 23, p. 33.

[18] Sources which discuss remedies for the present situation with respect to interferences are: Oldfield Hearings of 1912, No. 3, p. 19; No. 4, pp. 39-40; No. 10, pp. 32, 34-35; No. 15, pp. 7, 10-11. House Report, No. 1110, 62nd Cong., 3rd Sess., p. 180; Oldfield Report of 1912, p. 24; Macomber, "Patents and Industrial Progress," *North American Review*, June, 1910.

"The necessity of safeguarding inventors through a closer scrutiny of those who desire to represent them before the Patent Office is a pressing one. The capacity and probity of members of the Patent Office bar can hardly be fixed at too high a standard. The knowledge, both of technics and patent practice, necessary to properly assist applicants for patents in their endeavors to obtain proper protection is becoming greater every day, due to the constant growth of the arts, the greater complexity of the scientific questions involved, and the immense body of legal literature that has arisen. It may therefore become necessary in the future, as the arts and questions involved become more and more complex, to insist upon more extensive proofs of qualifications than have been required in the past."[24]

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[19] Report of Commissioner of Patents to Congress, 1916, p. 22.

[20] Rule 17 (h).

[21] Report of Commissioner of Patents to Congress, 1918, p. 19.

[22] Report of the Commissioner of Patents to Congress, 1919, p. 14.

[23] Rule 22 (c).

[24] Report of the Commissioner of Patents to Congress, 1919, p. 14.

This quotation suggests the necessity of much higher standards. The patent attorney should be examined, as in England, for admission to practice before the Patent Office, and should show ability to prepare specifications, knowledge of patent law, and acquaintance with physics, chemistry, and other sciences, both theoretical and applied.[25] Further, a nominal annual fee should be imposed upon registered patent attorneys so as to eliminate the names of those persons who do not practice actively before the Patent Office.[26] Moreover, attorneys, like examiners in the Patent Office, should be forbidden to secure patents of their own, because they are in a position to obtain confidential information concerning pending patents.[27] Finally, the Patent Office should have sufficient facilities for administering the present and proposed measures for raising the standards of patent law practice.

Modification of Employer-Employee Contracts. The contracts between the employer and his employees in the factory or mill—contracts which require the employee to surrender his inventions to the employer—tend to destroy the economic value of the patent system. They confiscate the reward which the inventor should receive and to that extent, therefore, defeat the purpose of the patent law. The stimulation of invention and the spirit of fairness itself demand the modification, if not the prohibition, of these contracts. Moreover, the Government should provide greater encouragement to its employees who conceive inventions to the end that their inventive proclivities may be revived and directed along useful lines. Several bills which would accomplish this object have been introduced in Congress.[28]

Fees: a. Revision of Present Fees. The fee schedule of the Patent Office should be revised so as to increase its revenues and discourage applications for trivial patents. At present the applicant pays $15 when he files his papers and $20 when and if his application is allowed. It is proposed that these fees should be reversed. The payment of $20 instead of $15 at the time of filing the application papers would discourage, to some extent, the enormous number of applications and would approximate more closely the actual cost of examination. On the other hand, the payment of $15 when the application is allowed would be more commensurate with the attendant expenses of the Patent Office. The total amount of the fees, $35, would remain the same to the successful applicant, while it would be $5 more to the unsuccessful applicant. Since approximately one-half of the applications for patents are rejected, it would mean a considerable increase in the revenue of the Patent Office. This might be used, if Congress would permit, in improving the quality of its examinations of applications.[29]

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[25] Oldfield Hearings of 1912, No. 2, p. 12; Hobson, *Our Country's Debt to Patents,* pp. 107-108.

[26] Oldfield Hearings of 1912, No. 1, p. 7.

[27] *Ibid.,* No. 23, p. 35.

[28] For example, S.5265, S.3223, and H.R.9932, H.R.11984. Read Joint Hearings before Committee on Patents of Senate and H.R., Administration of Certain Inventions and Patents by the Federal Trade Commission, 66th Cong., 1st Sess., S.3223 and H.R.9932, November, 1919.

b. Imposition of Annual Fees. Several countries, including England, Germany, and France, impose, after the first four or five years of the life of a patent, annual fees, failure in the payment of which results in its cancellation. These fees usually increase progressively with the age of the patent, upon the theory that an invention, if successful, earns more and more each year until the patent expires, and that, if unsuccessful, the inventor has the opportunity to abandon it prior to the payment of oppressive fees.

Annual fees would eliminate undesirable patents and, therefore, reduce the amount of patent litigation. A multiplicity of patents covering the slightest details retards the development of inventions of the finer sort. The imposition of yearly fees would remove many of them, increase the value of the other patents, and clear the way for manufacturing activity. There would be fewer patents to consider when capital proposes to enter a particular field of activity in which invention is important. The elimination of many improvement patents, many of which are significant only in blocking the way to superior inventions, would lead to better processes and products. Fees would also discourage the suppression of patents owing to the appreciable cost of maintaining them.[30] Even an industrial monopoly based upon thousands of patents most of which lie idle might surrender some of them to avoid the financial burden which they entail. It might not be able to pass this additional expense to the users of its product for which an elastic demand exists, and therefore would abandon its patents of little value.

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[29] It may be of interest to note that the United States patent law of 1836 fixed the fee for American citizens at $30; for subjects of Great Britain at $500; for all other persons at $300. This was changed by the law of 1861.

The extent to which foreigners, particularly Germans, have reserved the United States as a market for their patented goods manufactured abroad is presented in another chapter. This reservation of the market, especially in the field of dyes and other chemicals, is accomplished by means of thousands of patents. The imposition of annual fees would lead to the surrender of some of them, and would tend to discourage the practice in the future. Also, burdensome fees would tend to dishearten so-called patent "pirates" who devote themselves to creating obstructive and alternative inventions and to forcing others in some instances to buy them in order to avoid infringement suits. Besides, there is an obvious discrimination against United States inventors through the absence of a fee system in this country. For example, "when a German inventor forfeits his German patent, he thereby throws the field open to development and exploitation by Germans in Germany but because he does not also and at the same time relinquish his corresponding rights in the United States we are barred by our own laws and by our own acts from enjoying a liberty of action and a freedom of motion that the Germans enjoy. A dead German patent, therefore, still lives and rules in the United States."[31]

Arguments against annual fees may be advanced, as is true of every proposal to improve the patent situation. These levies might compel the indigent inventor to abandon his patents, however valuable intrinsically, and therefore would discourage his inventive endeavors in the future. Industrial monopolies based upon the control of patents could afford, it is said, to pay the fees. This last contention, however, is not borne out by the effect of fees in foreign countries. Most of the English and German patents are surrendered prior to their expiration through unwillingness to continue the payment of the fees. In Great Britain less than five per cent of the patents applied for by residents and foreigners, are considered by their owners worth keeping alive by the payment of annual fees and taxes up to the end of the fourteenth year.[32] The number abandoned in this fashion is so great as to lead one to the conclusion that large corporations, as well as indigent inventors, have contributed toward the total. Also, it is contended that the necessity of paying fees would discourage the securement of patents, and therefore the disclosure of inventions; in short, would encourage the secrecy of inventions. The answer to this argument is that such inventions, if they are not valuable enough to warrant the payment of fees, would detract little from our industrial life. Moreover, it is alleged that these fees would impose a heavy burden upon patents which require several years of development before they can be a source of revenue to their owners. Many inventions are ahead of their time, and though valuable intrinsically they do not lend themselves to profitable exploitation for some time. It seems unjust in such cases to impose a financial burden upon the inventor. Also, many improvement patents cannot be developed on account of basic and controlling inventions, in which instances the same objection to fees might be applied. These objections to annual fees, though of considerable weight, are more than counterbalanced by the advantages which would, as described, flow from their imposition.

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[30] Hesse, "Annual Patent Renewal Fees," *The Journal of Industrial and Engineering Chemistry,* Vol. XI, 1919, p. 697.

[31] *Ibid.,* p. 697.

Compulsory Working of Patents. Many countries provide that if a patent is not adequately worked within a certain period, say four years, it must be subject either to revocation or compulsory licenses. The general philosophy which lies back of such a law is that the suppression of patents violates the purpose of patent laws, that it retards the promotion of invention. Also, the law is designed to prevent the suppression of patents for purposes of exploitation.[33] Moreover, its justification is most evident with respect to dragnet patents and essential inventions.

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[32] Marks, "Post-Bellum Britain and the Inventor," *The Scientific American,* Dec. 13, 1919, p. 594.

Various arguments have been advanced in support of a similar law in the United States. It would make possible the utilization of many improvements prior to the expiration of controlling and basic patents. On the other hand, patented improvements could be applied to the basic invention, in some instances, prior to their expiration. In short, the law would facilitate the assembling of inventions which are complementary and auxiliary to each other, and therefore facilitate the perfecting of a particular process or product. It would expedite the concrete application of inventive efforts and therefore the realization of the purpose of the patent laws.

Compulsory licenses would extend the use of the royalty basis of compensation to the inventor. A court or commission would fix the amount of the royalty. The patentee would be more likely to receive compensation for his invention; and the public, to enjoy the fruits of his endeavors. He could devote more time to invention and less to attempts to sell his patent. Moreover, compulsory licenses would prevent his overestimation of the importance of his patent and the consequent nonuse of his invention. Royalties for him and the working of the invention would promote the public welfare.[34] If his invention is of importance, competing manufacturers would apply for licenses as a matter of self-protection.

The objections to the compulsory working of patents, with its attendant penalties of revocation and compulsory licenses, are of considerable weight, especially from the standpoint of the individual inventor in the United States. First, one should remember that it requires many years, often more than one-half the life of a patent, to reduce some inventions to practical use; and therefore revocation or compulsory licenses in such instances would be unjust to the inventor.

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[33] Oldfield Hearings of 1912, No. 24, p. 26.

[34] *Ibid.,* No. 24, p. 28.

It is contended that the purpose of these provisions could be defeated. The patents of a wealthy corporation—the good, bad, and indifferent—could be worked slightly and sufficiently to satisfy the requirements of the law. It is conceivable that an additional plant would be erected to provide for the "adequate" working of the idle and usually inferior inventions. Individuals and small companies might be licensed to utilize them to an adequate extent. Patent lawyers of foreign countries that have these laws solicit business in the United States by advertising "Patents worked."[35] Also, the announcement of the willingness to license others, known as "working by advertisement," might meet the technical requirement of the law, as it does in some countries. Moreover, these provisions might encourage the secrecy of inventions, at least until the time of their introduction becomes opportune.

The last paragraph suggests the possibility of waste. The working of patents merely to conform to the requirements of the law, and especially if they cover alternate and inferior inventions, dissipates our factors of production. The same objection would apply to the securement of licenses to work inventions of this sort. Also, the attempt of a concern to work many and varied patents might lead to an undue expansion of its business and perhaps failure.

The compulsory working of patents would operate in favor of the wealthy corporation and against the indigent inventor or small company. The one would be able to work its patents sufficiently to escape the law, but the other might not, owing to differences in the amount of capital available. The large corporation would be in a better position than the typical inventor in exploiting other inventions made available by revocation or compulsory licenses. For example, the General Electric Company, with its existing plants and organization that represent millions of dollars, could advantageously employ other inventions which pertain to electricity; while the average inventor would not have sufficient capital to utilize them. The tendency would be toward a greater concentration in the control of patents, and a further encroachment upon the business of a small competitor.[36] The large corporation might be tempted to crush a small rival by means of unfair competition, reduce its patents to idleness, and therefore subject them to the provisions of the law.[37] Moreover, if one concern, like the United Shoe Machinery Company, already dominates an entire industry, the outside inventor would have no better market for his invention, for it would be the only possible licensee, as it is to-day the only purchaser or licensee.

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[35] Oldfield Hearings of 1912, No. 6, p. 24.

Litigation, already a weakness of our patent system and the bane of the inventor's existence, would arise from the enforcement of the penalties of revocation and compulsory licenses. Every attempt to apply them would require the settlement of the question as to what constitutes "adequate" working of an invention. Unless the onus of proof were placed on the patentee, an applicant for a license would be unable to obtain data concerning sales, etc., with which to prove inadequate working. The differentiation of alternative inventions for the purpose of ascertaining which ones are worked would present an intricate problem. Furthermore, the fixation of the amount of royalty in return for licenses would ever remain a subject of controversy. It would be difficult, if not impossible in some instances, to stipulate a royalty which would be fair to both the licensor and licensee, because the value of a new invention is largely an unknown quantity.[38] An invention, for example, which seems trivial to-day may be of great importance in the future. The volume of future sales is a matter of conjecture. Readjustment of the royalties from time to time would result in confusion and uncertainty. The embodiment of many inventions in a single product would complicate the problem. It might be contended that an applicant is not entitled to a license owing to the invalidity of his patents. The patentee would be forced into litigation as the defendant in suits brought for the securement of licenses. In addition, the inability to work a patent owing to the sickness, poverty, etc., of the inventor or to the existence of obstructive and controlling patents would require modification, allowances, and exceptions in applying the law, and therefore litigation and its attendant evils.

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[36] *Ibid.*, No. 3, p. 21.

[37] *Revision of Patent Laws,* Patent Law Assn. of Washington, 1912, p. 67.

[38] Oldfield Hearings of 1912, No. 3, p. 22.

If the applicant for a license were not obliged to accept it upon the conditions prescribed by the court although the patentee were compelled to grant it, the situation would be unfair to the latter.[39] The applicant should be compelled to take the license upon the terms stipulated by the court. Such a provision, however, would discourage applications for licenses and therefore would tend to defeat the purpose of compulsory licenses.

It should be remembered that neither revocation nor compulsory licenses guarantee the working of an invention. "Without cordial coöperation between the inventor and the manufacturer it is only rarely that the printed description of a patent—however carefully drawn—conveys sufficient information to enable a new process to be successfully worked and this successful coöperation can not be obtained by compulsion. As a matter of fact, a patent is only granted for a demonstrably new idea, whereas some of the fundamental conditions which allow this new idea to fructify may not in themselves be patentable and consequently are automatically excluded." [40] Many patent specifications filed by foreigners are either incomplete or intentionally misleading, a fact which accentuates the difficulty of the manufacturer. This applies particularly to chemical patents.[41] Moreover, revocation and compulsory licenses would destroy the exclusiveness of a patent monopoly, and therefore lessen the incentive to assume the risk of developing a new invention since competitors could escape this risk and cost and yet partake of any resultant success.

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[39] Oldfield Hearings of 1912, No. 8, p. 15.

[40] Mond, "The Patents and Designs Bill," 1919, *The Journal of the Society of Chemical Industry,* Vol. 38, No. 2, 1919, p. 323 R.

[41] "Discussion on Patent Law Reform," *Journal of the Society of Chemical Industry,* Vol. 36, 1917, p. 808.

The net effect of the foregoing objections to the compulsory working of patents would be the discouragement of invention. The inventor, it seems, would be likely to receive a smaller reward than at present. It would be more difficult to sell a patent upon satisfactory terms. Furthermore, the corporation would have less inducement in employing professional inventors. Many of their patented improvements, inferior or alternate in character, could not be advantageously embodied in a particular product, and therefore would be subject either to unprofitable and wasteful working on the one hand or revocation and compulsory licenses on the other.

The experience of foreign countries indicates a small measure of success with revocation and compulsory license provisions in their patent laws. They have been most effective with respect to patents granted to foreigners. Many American companies, such as International Harvester Company, Westinghouse Electric Company, United Shoe Machinery Company, National Cash Register Company, Singer Sewing Machine Company, Gillette Razor Company, Columbia Phonograph Company, Remington and other typewriter companies, American Pencil Company, and Diamond Match Company, have established factories abroad so as to save their patents.[42] Other individuals and corporations have granted licenses more willingly. The Germans have resorted to subterfuges to evade the purpose of the working requirements of the English and other laws, for example carrying on the final processes abroad on intermediates made in Germany. The citizens of this country are required to work their patents in England, France, and many other countries from which they may obtain them, although the United States does not impose these restrictions upon its citizens who secure patents in this country. Similar laws in the United States which will apply to them are worthy of favorable consideration.[43] The significance of such a provision is suggested in a previous chapter which describes the suppression of United States patents by foreigners.

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[42] *Export Problems of the United States,* American Manufacturers' Export Assn., Vol. II, 1919, p. 177; Oldfield Hearings of 1912, No. 8, p. 12; *The Economic Journal,* Vol. XIX, p. 546; *The Journal of Industrial and Engineering Chemistry,* Vol. 7, No. 4, p. 306; *Journal of the Society of Chemical Industry,* Vol. 36, 1917, p. 809; Perry's *Directory of Great Britain and Ireland,* 1917, pp. 1943, 1944, 2605, and 2671; United Shoe Machinery Corporation, Report of the President to the Annual Meeting of Stockholders, 1908, p. 2.

Royalty Basis of Remuneration. Another proposed remedy is that the inventor should be permitted to dispose of his patent only on a royalty basis. Thomas A. Edison stated, in 1919, that "if there is any possible way whereby the law would in actual practice work out so that the inventor would be protected from the capitalist, either by the impossibility of alienating all his interest, or in that a fixed per cent should always be his, in spite of himself, it would be of great value to the people of the United States."[44] The task of fixing the royalties of hundreds of thousands of patents suggests the impracticable nature of this proposal.

Expiration of Basic and Improvement Patents at Same Time. Another proposal for improving the patent laws rests upon a distinction between basic and improvements patents: namely, that the latter shall expire at the same time as the basic patent to which they relate. This would have prevented the prolongation of former monopolies by means of tying clauses based upon patents. The present illegality of such clauses removes this practice. The two facts, that about 99 per cent of the patents cover improvements, and that some of them are secured after the basic patent expires, are sufficient to demonstrate the futility of this proposal.[45]

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[43] The United States patent law of 1832 required an alien to introduce his invention into public use in this country within one year from the issue of his patent. The patent law of 1836 provided that the suppression of an invention by an alien constituted one of the defenses which an alleged infringer could offer, to wit: "That the patentee, if an alien at the time the patent was granted, had failed and neglected, for the space of eighteen months from the date of the patent to put and continue on sale to the public, on reasonable terms, the invention or discovery for which the patent issued."

[44] Nolan Hearings of 1919, pp. 172-173.

[45] A long list of improvement patents, however trivial, may serve to intimidate those who would consider the manufacture and sale of the product on which these patents appear. It has been suggested that they should be designated "improvement patents" and should indicate the specific improvements which they cover.

Dedication of Essential Inventions to Public Use by Government. Important inventions, like those relating to surgical instruments, wireless telegraphy for ships, methods of manufacture which protect the health of the workers, should be available to all upon reasonable terms. The self-interest of those who own the patents may clash with the vital welfare of the public. No one who has the social well-being at heart would question, for example, the urgent necessity for the immediate and general adoption of the new process of making matches and the discontinuance of the former sulphur match and its attendant evils. The government, in granting patents, should reserve the right of purchasing them and permitting others to use them either gratis or upon a royalty basis. Some nations retain this prerogative in their patent laws. The English Act of 1883, for example, compels the patentees to permit the government "to use in the public service the inventions for a consideration." Prior to that date inventors, like Arkwright, have received money for their inventions.[46] The United States Government has appropriated money to a few inventors, such as Morse, to assist them with their inventions, but its patent law does not provide for the availability of important inventions through government action.

Institution for Development of Inventions. Undoubtedly the greatest obstacle to the average patentee is lack of capital in developing and defending his invention. A patent covers an invention of unknown value and therefore cannot be financed through banks and other regular channels. Consequently, the patentee, whatever the intrinsic value of his invention, is apt to suffer from insufficient capital and in addition, perhaps, from the practices of the unscrupulous promoter. This situation suggests the desirability of creating an institution to assist the patentee in developing his invention and presenting it to the public. It would reduce the untold waste of the present system by discarding the worthless invention at an early stage and by utilizing the meritorious invention. A thorough and impartial investigation of inventions would justify the inventor either in abandoning his invention, or in asking substantial remuneration for it. An institution of this sort might promote inventions as much as does the patent law itself. As one writer has said, "The splendid wealth of latent talent, retarded in its development for lack of funds and other causes, would find expression in tangible results and benefits for all." We have "many institutions for the encouragement of scientific research, but all of these are conducted on purely theoretical lines, and there exists no organization that both encourages research and provides the means of placing the result before the people commercially."[47]

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[46] Martin, ***English Patent System,*** **p. 37.**

Public Appreciation of Inventor. A part of the general environment which promotes invention is public appreciation of the scientist and the inventor, those unpretentious men of genius who prepare the way for our economic and social progress. They dedicate themselves, often in the midst of hardship, to the search of what is yet to be, and in the end our knowledge of what they contributed to the world is confined in too many instances to the names of the corporations that have exploited their ideas. The professional athlete, the prizefighter, the spendthrift, and the demagogue are the idols of millions who neither know nor care about those who contribute to that invisible current which refreshes and sustains and directs our civilization. The inventor who receives any material reward of consequence is the rare exception. Our patent laws, operating in an economic society in which capital is playing a rôle of ever-increasing importance, do not succeed in rewarding inventors as our forbears intended. This situation accentuates the necessity of fostering a general environment—of which public opinion is a potent part—which will brighten and quicken the spirit of inventive genius.

Effective Publicity as to Evils of Patent System. Effective publicity as to the evils of our patent system would hasten remedial measures for their removal, and would enable the inventor to avoid the pitfalls and disappointments which now await him. The Patent Office could accomplish beneficial results in educating the inventor, not with opinions but with facts. For example, if the inexperienced inventor knew that the majority of patents bring no financial return to their owners, he might be more concerned with the question, "Should I, not can I, obtain a patent?" The National Institute of Inventors of New York City, organized in 1914, gives advice to its members and urges the betterment of our patent laws. The author's study of the economics of our patent system should be supplemented by a government investigation of the extent of certain practices arising from patents—for example, the suppression of patents. The authority and resources of the Government would permit the collection of statistical data which are beyond the reach of the individual investigator.

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[47] Avram, *Patenting and Promoting Inventions,* p. 166.

Conclusion

That our patent system has promoted inventions, but not in the manner intended by our forefathers, seems certain. The industrial monopoly based on patents seeks to continue its power by means of professional inventors employed in its laboratories, by contracts with other employees to receive their inventions, and by the acquisition of patents from other sources. In many instances the exploitation of patents in furthering industrial monopoly is the chief incentive to invention. The patent law is an immediate source of encouragement and an ultimate source of discouragement to the outside inventor. The evils connected with our patent system reduce his patent in most instances to a mere deception. The wealthy corporation and not the inventor, as a rule, derives substantial returns from patents. The social costs of the present patent situation—industrial monopoly, suppression of patents, discouragement of invention, and waste of human and material resources—offset considerably, if not completely, any good derived from patents. And yet the fundamental idea which underlies the granting of patents is sound. The problem is to alter the patent and other laws, and their administration, in the light of modern conditions, so that they may encourage invention to the greatest extent and at the least cost to the people.

APPENDICES

APPENDICES

APPENDIX I

SOME QUESTIONS CONSIDERED BY THE COURTS IN PASSING UPON THE LEGALITY OF INDUSTRIAL MONOPOLIES BASED UPON PATENTS

1. Is there only one patentee?
2. What is the intention of the patentee?
3. Are the patents capable of conjoint use in a single machine?
4. Are any of the patents suppressed?
5. Do the patents cover the same commodity?
6. Are the patented articles competitive?
7. Were the various concerns in entering the combination aware of its purpose?
8. What companies and how many belong to the monopoly?
9. Is the combination designed primarily to increase efficiency, to prosecute infringers, or to restrain trade?
10. What is the effect of the monopoly on prices?
11. Does the patent cover a major or a minor part of a commodity or process?
12. Does the patent pertain to a process or to a commodity?
13. Does the monopoly arise from patents or from combination?

APPENDIX II

LIST OF DECISIONS OF LOWER COURTS CONCERNING THE RIGHT OF PATENTEE TO DICTATE THE SUPPLEMENTARY SUPPLIES FOR HIS PATENTED ARTICLE

Commercial Acetylene Co. v. Autolux Co., 181 Fed. Rep. 387; U. S. Fire Escape Counterbalance Co. v. Joseph Halsted Co., 195 Fed. Rep. 295; United States v. Winslow, 195 Fed. Rep. 578; Consolidated Rubber Tire Co. v. Republic Rubber Co., 195 Fed.

Rep. 768; Parsons Nonskid Company Limited, et al., v. McKinnon Chain Company, 196 Fed. Rep. 218; Lovell-McConnell Mfg. Co. v. Waite Auto Supply Co., 198 Fed. Rep. 130; Winchester Repeating Arms Co. v. Buengar, et al., 199 Fed. Rep. 786; Crown Cork & Seal Co. v. Brooklyn Bottle Stopper Co., 200 Fed. Rep. 592; American Graphophone Co. v. Pickard, 201 Fed. Rep. 546; Waltham Watch Co. v. Keene, 202 Fed. Rep. 225; Winchester Repeating Arms Co. v. Olmsted, 203 Fed. Rep. 493; Robert H. Ingersoll & Bro. v. M'Coll, 204 Fed. Rep. 147. Other decisions of lower courts on the validity of restrictions as to the use of a patented article are: Cortelyou v. Lowe, 111 Fed. Rep. 1005; Cortelyou v. Lowe, 114 Fed. Rep. 1021; Cortelyou v. Carter's Ink Co., 118 Fed. Rep. 1022; Broderick Copygraph Co. v. Roper, 124 Fed. Rep. 1019; Mayhew v. Broderick Copygraph, 137 Fed. Rep. 596; Broderick v. Mayhew, 131 Fed. Rep. 92; Cortelyou v. Johnson, 138 Fed. Rep. 110; and Cortelyou v. Johnson, 145 Fed. Rep. 933.

Appendix III

TYING CLAUSES OF THE UNITED SHOE MACHINERY COMPANY

The "additional machinery" clause appeared in "the current form of lease for the important group of 'metallic machines.'"

"In case the lessee has more work of the kind which can be performed by any of the machines belonging to the Metallic department of the lessor than the capacity of the Metallic machinery which he has under lease from the lessor will permit, then the lessee shall either take from the lessor, under a like lease and agreement, sufficient additional machinery to perform the work, or in case the lessee does not thus lease additional Metallic machinery from the lessor, then the lessor may, if it so elects, cancel forthwith this lease and any other lease of Metallic machinery then in force between the lessor and the lessee."[1]

The "exclusive use" clause appeared in the leases for lasting, heeling, pegging, pulling-over, and other machines, but the lasting in particular.[2]

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[1] Brief for the United States in United States v. United Shoe Machinery Company (No. 207), pp. 161-162.

[2] *Ibid.*, pp. 369-371.

"If at any time the lessee shall fail or cease to use exclusively lasting machinery held by him under lease from the lessor for lasting all boots, shoes, and other footwear made by or for him, which are lasted by the aid of machinery, or shall fail or cease to use exclusively tacking mechanisms and appliances held by him under lease from the lessor for doing all work in the manufacture of all boots, shoes, and other footwear made by or for him which is done by the aid of tacking mechanisms and appliances, the lessor, although it may have waived or ignored prior instances of such failure or cessation, may at its option terminate forthwith by notice in writing any or all leases or licenses of lasting machines, lasting machinery, lasting mechanisms, or lasting devices then existing between the lessor and the lessee, whether as the result of assignment to the lessor or otherwise; and the possession of and full right to and control of all lasting machines, lasting machinery, lasting mechanisms, and lasting devices the lease or license of which is so terminated shall thereupon revest in the lessor free from all claims and demands whatsoever."[3]

The "prohibitive" or restricted use clause appeared in the leases for nearly all types of shoe machinery.

"The leased machinery shall not nor shall any part thereof be used in the manufacture or preparation of any welted boots, shoes, or other footwear or portions thereof which have been or shall be welted in whole or in part, or the soles in whole or in part stitched by the aid of any welt-sewing or sole-stitching machinery not held by the lessee under lease from the lessor, or in the manufacture or preparation of any turned boots, shoes, or other footwear or portions thereof, the soles of which have been or shall be in whole or in part attached to their uppers by the aid of any turn-sewing machinery not held by the lessee under lease from the lessor, or in the manufacture of any boots, shoes, or other footwear which have been or shall be in whole or in part pulled over, slugged, heel seat nailed, or otherwise partly made by the aid of any pulling-over or 'metallic' machinery not held by the lessee under lease from the lessor."[4]

The "full-capacity" clause appeared in the leases for most of the types of shoe machinery of this company.

"The lessee shall use the leased machinery to its full capacity upon all boots, shoes, or other footwear or portions thereof made by or for the lessee in the manufacture or preparation of which such machinery is capable of being used."[5]

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[3] *Ibid.*, pp. 162-163.

[4] *Ibid.*, pp. 163-164, 371-374.

The "return" clause appeared in some of the leases.

"Upon the expiration or termination of this agreement or any extension thereof or of the lease and license herein contained by notice or by reason of any default on the part of the lessee as to the terms of this agreement or of any other lease or license agreement from the lessor or otherwise, in any manner whatsoever, the lessee shall forthwith deliver the leased machinery to the lessor at Beverly, Mass., complete and in good order, reasonable wear and tear alone excepted; and shall thereupon pay to the lessor without prejudice to any other rights or remedies of the lessor the sum of One Hundred and Fifty Dollars ($150) in respect to each lasting machine hereby leased as partial reimbursement to the lessor for deterioration of the leased machinery, expenses in connection with the installation thereof, and instruction of operators."[6]

The "supplies" clause appeared in some of the leases.

"The lessee agrees, as rent or royalty for the said machinery, to purchase of the lessor at the prices established by the lessor all the fastening material used by him in or in connection with the said machinery, paying therefor in cash on delivery. The lessee hereby guarantees that for each machine hereby leased the amount of fastening material used by him and purchased from the lessor in accordance with the terms hereof shall not be less than 400 pounds during each calendar year embraced by this lease, excepting that a reduction of 33 pounds from the amount thus guaranteed shall be allowed at the end of the year for each calendar month during which the factory of the lessee has remained wholly idle."[7]

"Royalty forcing" or "factory output" clause appeared in several leases, especially those for welt machinery.

"The lessee shall pay to the lessor throughout the full term of this agreement the respective amounts set forth in the following schedule in respect to each pair of welted boots, shoes, or other footwear, or portions thereof, manufactured or prepared by or for the lessee, which shall have been welted in whole or in part or the soles of which shall have been in whole or in part attached to welts by the use of any welting or stitching or sewing machinery, and in respect to each pair of 'turned' boots, shoes, or other footwear, or portions thereof, manufactured or prepared by or for the lessee, the soles of which shall have been sewed or attached to their uppers in whole or in part by the use of any sewing or stitching machinery." . . .

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[5] Brief for the United States in United States v. United Shoe Machinery Company (No. 207), p. 165.

[6] *Ibid.*, pp. 165-166.

[7] *Ibid.*, p. 166.

"It will be noted that if a shoe manufacturer made 1,000 pairs of shoes of which 500 were sewed on defendants' machines used to their full capacity and 500 on a machine of a competitor, he would nevertheless have to pay to defendants royalties both on the 500 pairs made on their machines and on the 500 pairs made on the competing machine. In addition, he would, of course, have to pay for the competing machine."[8]

The "discriminatory royalty" clause appeared in some of the leases.

"The lessee shall pay to the lessor on the last day of each calendar month the amount or amounts set forth in the following schedule of payments in respect to each pair of footwear of a kind or kinds therein specified cut during the preceding calendar month in whole or in part by the aid of any clicking machine or machines held by the lessee under lease from the lessor or by the aid of any Clicking Machine dies of the lessor:

Schedule of Payments	*Per Pair*
For all footwear which is lasted by machinery not held by the lessee under lease from the lessor	1 cent
For all welted footwear which is welted or stitched by machinery not held by the lessee under lease from the lessor	6 cents
For all turned footwear the soles of which are sewed to their uppers by machinery not held by the lessee under lease from the lessor	1¾ cents"[9]

The leases contained other restrictions.

The lessee was required "at his own expense" to keep the machinery "in good and efficient working order." He had to obtain from the "lessor exclusively" the parts needed for repairs at prices "from time to time established by the lessor." The lessee could not "without permission from the lessor, remove a machine from one of his factories to another." The United company "and its agents and employees shall at all times be given access to the leased machinery for the purpose of inspecting it or watching its use and operation, or of altering, repairing, improving, or adding to it, or determining the nature or extent of its use." The machinery was held at the risk of the lessee. The lessee paid taxes and assessments upon the machines. At the expiration of the lease, the machine was returned by the licensee at his expense. The licensee had to keep and submit a record of the number of pairs of footwear manufactured and "furnish any further information which may be called for in relation to the leased machinery or the use thereof." Lastly, the licensor was given the right to take and remove the machine in case of "any default on the part of the licensee as to the terms of this agreement or of any other lease," without making any repayments to the licensee.[10]

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[8] *Ibid.*, pp. 167, 168.

[9] *Ibid.*, pp. 169-170.

Appendix IV

COPIES OF NOTICES AND CONTRACTS RELATING TO MAINTENANCE OF RE-SALE PRICES OF PATENTED ARTICLES

Robert H. Ingersoll & Bro. employed a printed notice pasted on each box containing a watch sold to the retail trade:

"Yankee Watch. Nickel. Notice.

"As manufacturers of the Yankee Watch under various United States patents and trade-marks owned and controlled exclusively by us, which according to recent court decisions establish our right and privilege to fix the retail price, we do hereby fix such price at one dollar ($1.00) and we sell this watch only on condition that the retail dealer will not sell it for less than one dollar ($1.00).

"The retail dealer acknowledges that the receipt and acceptance of this watch shall be an assent to the above terms and an agreement directly with the manufacturers to sell subject to the above fixed price.

"Robert H. Ingersoll & Bro., Manufacturers."[1]

The Gem Razor Company maintained a contract with the dealer and used the printed notice to reach the consumer, as the following contract signed by the dealer reveals:

"This razor is licensed by us for sale and use only when sold to the public at the price stipulated. Any sale or use of this razor in violation of this condition will constitute an infringement of our patents under which they and the blades used in connection therewith are manufactured, and all parties so selling or using this razor contrary to the terms of this license will be treated as infringers of said patents and sued for injunction and damages.

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[10] Brief for the United States in United States v. United Shoe Machinery Company (No. 207), pp. 187-189.

[1] 147 Fed. Rep. 522-523.

..........................19......

Gem Cutlery Co.

Ship to ....via.........When........
Goods will be expressed unless otherwise specified on this order.
This order contains all agreements between the purchaser and the Gem Cutlery Co.
Terms: F.o.b. New York, strictly 2 per cent 10 days net."

"We hereby agree to strictly maintain the current prices regularly fixed by the Gem Cutlery Company on the above.

Signed (Dealer)................."[2]

The Gillette Safety Razor Company used the printed notice, as follows:

"Gillette Safety Razor.
(Pocket Edition.)

"Notice:—This razor is only licensed by us for sale and use when sold to the public at a price not less than $5. No license is granted to sell it at a lower price than $5, or to use it if sold at less than such price. Neither must it be included in combined sale with other goods, nor used as a premium upon the sale of other merchandise. Any transfer or sale in violation of these conditions or its use when so sold will constitute an infringement of our United States Letters Patent, Nos. 775134 and 775135, under which this razor is made, and all parties selling or using it contrary to the terms of this license will become infringers of said patents and will render themselves liable to an injunction and damages. The limited license to sell above set forth is good only so long as this label remains upon the package, and erasures or removal of this label will be construed as a cancellation of the license. A purchase is an acceptance of these conditions. All rights revert to the undersigned in the event of any violation thereof.

"Gillette Safety Razor Company.
"(Owners of said patent.)
"King C. Gillette, President."[3]

The Columbia Phonograph Company employed contracts with its dealers and the notice affixed to its products. The following is the notice, which refers to the contract:

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[2] Oldfield Hearings of 1912, No. 11, pp. 5-6.

[3] *Ibid.,* No. 7, p. 20.

"Notice to Purchasers of 'Columbia' Graphophones, Grafonolas, Records, and Blanks.

"All 'Columbia' graphophones, grafonolas, records, and blanks are manufactured by the American Graphophone Company under certain patents and licensed and sold through its sole agent the Columbia Phonograph Company (General), subject to conditions and restrictions as to the persons to whom and the prices at which they may be resold by any person into whose hands they come. Any violation of such conditions or restrictions makes the seller or user liable as an infringer of said patents."[4]

The Dover Manufacturing Company placed a notice on its products which, as contrasted with the "notices" of other manufacturers, was not explicit as to the minimum resale price.

"Asbestos sadirons are sold subject to restrictions as to the persons and the minimum price at which they may be resold. Any violation of such restrictions makes seller or user an infringer of the patents controlled by the Dover Manufacturing Co. A purchase is an acceptance of these conditions. All rights revert to the undersigned in the event of any violation."[5]

The Kohler Dye & Specialty Company used the following notice:

"Special Notice.

"This gas jet heater is licensed by us for sale and use only when sold to the public at a price not less than $1.50. No license is granted to sell it to the public at a less price than $1.50, or to use it if sold at less than such price. Any sale in violation of this condition, or its use when so sold, will constitute an infringement of our United States Letters Patent No. 822374 (other patents pending), under which this gas-jet heater is constructed, and all parties so selling or using it contrary to the terms of this license will be treated as infringers of said patent and will render themselves liable to an injunction and damages. The license to sell is good only so long as this label remains upon the package, and erasures or removal of this label will be construed as a cancellation of the license. A purchase is an acceptance of these conditons. All rights revert to the undersigned in the event of any violation.

"Kohler Dye & Specialty Co.
"Sole Licensee."[6]

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[4] Oldfield Hearings of 1912, No. 8, pp. 23-24.

[5] Chamberlin, W. H., Patented Articles, *Illinois Law Review*, Vol. 6, pp. 357, 364.

[6] *Ibid.*, Vol. 6, pp. 357, 365.

APPENDIX V

DECISIONS OF FEDERAL COURTS RELATING TO THE RIGHT TO MAINTAIN THE RE-SALE PRICES OF PATENTED ARTICLES

Edison Phonograph Co. v. Kaufmann, 105 Fed. Rep. 960; National Phonograph Co. v. Schlegel, 128 Fed. Rep. 733; New Jersey Patent Co. v. Schaefer, 144 Fed. Rep. 437; Ingersoll v. Snellenberg, 147 Fed. Rep. 522; New Jersey Patent Co. v. Schaefer, 159 Fed. Rep. 171; New Jersey Patent Co. v. Martin, 172 Fed. Rep. 760; New Jersey Patent Co. v. Schaefer, 178 Fed. Rep. 276; Thomas A. Edison, Inc., v. Ira M. Smith Mercantile Co., 188 Fed. Rep. 925; Automatic Pencil Sharpener Co. v. Goldsmith Bros., 190 Fed. Rep. 205; Indiana Mfg. Co. v. Nichols & Shepard Co., 190 Fed. Rep. 579; Waltham Watch Co. v. Keene, 191 Fed. Rep. 855.

APPENDIX VI

EMPLOYER-EMPLOYEE CONTRACT

"In consideration of my employment by the American Telephone & Telegraph Co., a corporation duly organized and existing under and by virtue of the laws of the State of New York, and of the sum of one dollar, to me paid by said company, the receipt whereof is hereby acknowledged, I, Frank F. Fowle, of the Borough of Brooklyn, New York City, N. Y., agree, without charge, but at the cost of said company, to assign, and I do hereby assign to said company, any and all inventions in telephony, telegraphy, or combined telephony and telegraphy, or in any apparatus or appliances adapted for use therein or in connection therewith, that I have heretofore made while employed by said company, and any letters patent securing the same; and any or all such inventions that I may hereafter make during the time I am employed by said company; and agree to do, execute, and deliver any or all acts and instruments that may be necessary and proper to enable said company to obtain letters patent securing such of said inventions as it may wish so to secure.

"Witness my hand and seal this .... day of June, 1899.

....

"Witnessed by:

....

"CITY, COUNTY AND STATE OF NEW YORK, ss:

"On this ..... day of June, 1899, before me the subscriber, a notary public in and for the county of New York, personally came Frank F. Fowle, to me personally known, and known to me to be the person described in and who executed the foregoing instrument, and acknowledged the signature to the foregoing instrument to be his signature; and that he executed the same for the purposes mentioned therein.

....

"Notary Public in and for New York County."[1]

[1] Oldfield Hearings of 1912, No. 26, p. 47.

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Bloomer v. McQuewan, 14 How. 539.
Blount Manufacturing Co. v. Yale & Towne Manufacturing Co., 166 Fed. Rep. 555.
Bobbs-Merrill Co. v. Straus, 210 U. S. 339.
Boston Store v. American Graphophone Co., 246 U. S. 8.

Coke, 3 Institutes, 181.
Columbia Motor Car Co. v. C. A. Duerr & Co., 184 Fed. Rep. 893.
Continental Paper Bag Co. v. Eastern Bag Co., 150 Fed. Rep. 741; 210 U. S. 405.
Cotton Tie Co. v. Simmons, 106 U. S. 89.
Crown Cork & Seal Co. v. Brooklyn Bottle Stopper Co., 172 Fed. Rep. 225.
Crown Cork & Seal Co. v. Standard Brewery Co., 174 Fed. Rep 252.

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Dick Co. v. Henry, 149 Fed. Rep. 424.
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Dr. Miles Medical Co. v. J. D. Park & Sons Co., 220 U. S. 373.

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INDEX

A

Abolition of patents, 225-226.
Accident, 9-10.
Acquisition of patents, 69-74; methods of, 69-70; reasons for, 70-71; sources, 71-74.
Acquisition of patents, facilitation of, by control of basic patents and monopoly of patents. *See* Basic patent, control of, and Monopoly of patents.
Adriance, Platt and Co. v. National Harrow Co., 148-150.
Advertising by patent attorneys, 200-202, 235-236.
Allen, J., 193.
Alternate patents, 159, 168, 182-183, 243.
American Can Co., 85-89, 103.
American Car and Foundry Co., 100.
American Manufacturers Export Association, 245.
American Pencil Co., 245.
American Steel and Wire Co., 77-79, 170.
American Telephone and Telegraph Co., 65-66, 70, 103, 203, 212.
American Tobacco Co., 74-77, 170.
Americans, suppression and, 169-173.
Analysis of patents of Dick Co., 118-121.
Appeals in Patent Office, reduction in number of, 235.
Applicant, award of patent to first, 234-235; expeditious replies to Patent Office by, 234.
Applications, description and number, 23, 24-25, 183; "dragnet," 154-155, 193-194, 195; incomplete examination of, 185; publicity of, 228; thorough examination of, 228; time of filing as date of patent grant, 235; unwarranted claims in, 191-192.
Arnold, S. G., 20.
Art, 23.
Assumption of validity of patents, 229-230.
Attorneys, higher standards of patent, 235-237; inefficient and unethical, 186, 198-202, 215, 242.
Avram, M. H., 19, 23, 155, 202, 248.
Award of patent to first applicant, 234-235.

B

Background of problem, 1-33; causes of invention, 1-16; history of patents, 16-23; salient features of present patent law, 23-27; justification of patents, 27-32; conclusion, 32-33.
Baekeland, L. H., 194, 206, 214, 215-216, 217, 220.
Barus, Carl, 102-103.
Basic patent, control of, 72, 167, 193, 210, 241; expiration of, and improvement patents at same time, 246.
Bath-tub, 35, 49-52.
Bauer and Co. v. O'Donnell, 138-141, 144.
Bayer and Co., 204-205.
Bell Telephone Co., 100, 170, 193.
Bement v. National Harrow Co., 36-38, 43, 51.
Bentham, J., 29.
Blocking patents, 159, 168, 182-183, 243.

Blount Manufacturing Co. v. Yale and Towne Manufacturing Co., 46-49, 164-165, 170.
Bobbs-Merrill Co. v. Straus, 138-139.
Body of Liberties of Mass., 19.
Bonsack Machine Co., 74-75.
Boston Store v. American Graphophone Co., 123-124, 140-141, 144-145.
Boyleston Manufacturing Co., 70.
Brandeis, L. D., 211-212.
Bureau of Corporations, 45, 74-77, 98, 170.
Bureau of Foreign and Domestic Commerce, 175.
Button-fastener case, 109-113, 117, 126-127, 135, 161, 170.

C

Capital, lack of, 216-218.
Case Threshing Machine Co., 43-46, 169.
Census of U. S., 1900, Vol. X, Pt. IV, 1902, 174-175.
Circuit Courts of Appeal, conflict between, 187-188, 231-233; suit for alleged infringement only in one circuit, 233.
Claims, 24, 182-184, 191-192, 227, 228.
Clark, J. B., 26, 30.
Clark, V. S., 19, 20, 21-22.
Clayton Act, 34, 70, 104, 122, 132, 226.
Clayton Report, 128.
Coaster brake, 35, 59-60, 150.
Coke, 18.
Colonies, 19-22.
Columbia Motor Car Co. v. Duerr, 192-193.
Columbia Phonograph Co., 155, 245, 259-260.
Commissioner of patents, 12-13, 16, 22, 73, 152, 154-155, 157, 173-174, 180, 182, 185, 186, 190, 191, 194, 196, 200, 207, 218, 229-230, 232, 235-236.
Competition, relation of patents to, 25-27; elimination of, 70.
Composition of matter, 23-24.
Compulsory working of patents, application to foreign patentees, 176, 245-246; arguments for and against, 240-245.
Conclusion, 249.
Connecticut, 20.
Consolidations, 69-104; methods of acquiring patents, 69-70; reasons for acquiring patents, 70-71; sources of patents, 71-74; American Tobacco Co., 74-77; American Steel and Wire Co., 77-79; United Shoe Machinery Co., 79-85; American Can Co., 85-89; A. B. Dick Co., 89-90; Eastman Kodak Co., 90-97; Standard Oil Co., 97-98; International Harvester Co., 98-99; General Electric Co., 99-100; Westinghouse Electric Co., 99-100; other American Companies, 100; The Krupps, 100-101; criticism, 101-104.
Consolidations, criticism of patent, 101-104; evils of monopoly, 101; commercialization of learning, 101-103; retardation of invention, 103; waste of economic resources, 104.
Constitution, U. S., 22.
Continental Paper Bag Co. v. Eastern Bag Co., 117, 162-164, 170.
Contracts, employer-employee, 82, 202-204, 215, 237, 261-262.
Control of complementary goods, 128-134; United Shoe Machinery Co. cases, 128-134.
Cost of patent system, 224-225, 249; industrial monopolies, 224-225, 249; suppression of patents, 224-225, 249; discouragement of invention, 224-225, 249; waste of economic resources, 224-225, 249.
Cotton Tie Co. v. Simmons, 109.
Court of Appeals of District of Columbia, 24, 153.
Court of Patent Appeals, 231-233.
Courts, cumulative damages and costs, 230-231; disagreement of,

185-186, 187-188, 231-233; limitation of right to sue users of patented article, 233; suit for alleged infringement only in one circuit, 233; uniformity in judicial interpretation, 229, 231-233.
Cresse, F. A., 172.
Crompton Knowles Loom Works, 203.
Crown Cork and Seal Co., 113; v. Brooklyn Stopper Co., 113; v. Standard Brewery Co., 113.

D

Damages and costs, cumulative, 230-231.
Darcy v. Allen, 17.
Dedication of essential inventions to public use by government, 247.
Delay in granting patents, causes, 191-196; consequent risk in development of patents, 196-198; discouragement of inventor, 215; extent, 190-191; prevention of, 234-235.
Delay in granting patents, causes of, 191-196; unwarranted claims in application, 191-192; inopportuneness of invention, 192-193; desire to include subsequent inventions, 193-194; interferences, 195-196; conditions in Patent Office, 196.
Delay in granting patents, prevention of, 234-235; expeditious replies to Patent Office by applicant, 234; award of patent to first applicant, 234-235; time of filing application as date of patent grant, 235; reduction in number of appeals in Patent Office, 235.
Demerits of invention or patent, 165-167, 207-210.
Design, 24.
Development of inventions, 29-31, 196-198, 216-217, 241-242, 244, 247-248; institution for, 247-248; risk in, 196-198.
Dewing, A. S., 210.
Diamond Match Co., 100, 245.
Dick, A. B., Co., 51, 89-90, 111, 112, 113-121, 126, 131, 166, 170-172; v. Henry, 89, 114; Henry v., 51, 89, 111, 112, 113-118, 131; analysis of patents of, 118-121.
Dickens, Chas., 220.
Dictation of supplementary supplies, 109-127; button-fastener case, 109-113; Crown Cork and Seal Co., 113; A. B. Dick Co., 113-121; projecting machine case, 121-125; criticism, 125-127.
Dictation of supplementary supplies, list of judicial decisions concerning, 253-254.
Disclosure of invention, 27-28.
Discouragement, effect of, 220-223; retardation of inventions, 220-222; economic waste, 222-223.
Discouragement of inventors, 206-223; extent, 206-207; causes, 207-220; effect, 220-223.
Discouragement of inventors, compulsory working of patents and, 241-245.
Dittgen v. Racine Paper Goods Co., 148.
Divine inspiration, 8-9.
Division of labor, 3-5.
Dr. Miles Medical Co. v. J. D. Park and Sons Co., 117, 138.
"Dragnet" applications, 154-155, 193-194, 195.
Draper, G. O., 100, 168, 187, 197, 208-209, 211, 216-217.
Draper Co., 100, 203.
Drawings, official, 24.
Duration of patent, reduction in effective, 182.

E

Eastman Co.-Patents Co. contract, 106-109.
Eastman Kodak Co., 69-70, 90-97, 107-109, 151-152, 155, 156, 166, 203.
Economic conditions, 10-15.
Economic reward, 15-16.

Edelman, P. E., 153, 172, 193, 195, 202, 203.
Edison, Thomas A., 2, 72, 181, 206, 215, 220, 235, 246.
Edison Phonograph Co. v. Pike, 135-136.
Electric Renovator Co. v. Vacuum Cleaner Co., 148.
Ely, R. T., 31.
Employer-employee contracts, 82, 202-204, 215, 237, 261-262.
England, 16-19, 225-226, 237, 238, 240, 245, 247.
Equipment, replacement of old, 167-168; utilization of old, 70.
Eureka Specialty Co., 109-113, 117, 126-127, 135, 161, 170.
Evart Manufacturing Co. v. Baldwin Cycle-chain Co., 160-161.
Examination of applications, incomplete, 185; thorough, 228.
Examiner, 24, 153.
Examiners in chief, Board of, 24, 153.
Examiners in Patent Office, former, 73-74; insufficient number of, 183.
Expiration of basic and improvement patents at same time, 246.

F

False marking, 156-158.
Federal Trade Commission, 64-68, 89-90, 97, 104, 105, 114, 118, 147-151, 234.
Fees, amount of, 25; exemption from, after issuance, 184; imposition of annual, 227, 238-240; revision of present, 237-238.
Finances of inventor, 167, 216-218.
Fish, F. P., 182, 208, 225.
Fisher, Irving, 30-31.
Fiske, B. A., 3, 7, 8-9, 14-15, 207, 214, 218-219.
Folding bed case, 145.
Foreigners, suppression and, 173-176; working of patents by, 176, 245-246.
France, 238, 245.
Franklin, Benjamin, 6, 9.

G

Garst cases, 138.
Gates, John W., 78-79.
Gazette, Patent Office, 27-28, 71.
Gem Razor Co., 258-259.
General Electric Co., 65-67, 99-100, 170, 203, 211, 242.
General Film Co., 55-56, 58.
Germany, 100-101, 173-176, 183, 228, 235, 238-240, 245.
Gillette Safety Razor Co., 139, 245, 259.
Gladney, F. Y., 44-45, 109.
Goshen Rubber Works v. Single Tube Automobile and Bicycle Tire Co., 42.

H

Hadley, A. T., 30.
Hallidie, A. S., 15-16.
Hamilton, Alexander, 29.
Haney, L. H., 34, 69.
Harrow, 35, 36-39, 43, 47, 51, 148-150, 169.
Hearn, W. E., 4-5, 10-11, 12, 13-14.
Heaton Peninsular Button Fastener Co. v. Eureka Specialty Co., 109-113, 117, 126-127, 135, 161, 170.
Henry v. A. B. Dick Co., 51, 89, 111, 112, 113-118.
Hesse, B. C., 176, 177, 239.
History of Patents, 16-23; in England, 16-19; in the colonies, 19-22; in the United States, 22-23.
Hobson, H., 237.
Hobson, J. A., 4, 6, 8, 9, 12.
Hoe v. Knap, 160.
Hough, W., 7-8.
Hubert, P. G., 9, 207.

I

Ignorance of other inventions, 186.
Improvement, definition of, 24; expiration of basic and improvement patents at same time, 246; illegality of unauthorized use of, with basic invention, 72, 167, 193, 210, 241.

Incompetence of patent owner, 167, 216-218, 244.

Indiana Manufacturing Co., 35, 43-46, 169; v. J. I. Case Threshing Machine Co., 43-46, 169.

Industrial Commission Report, 77-79, 97-98, 221.

Infringement, amount and expense of, 145-146, 186-187; definition, 25; intentional, 152-153, 187; malicious, 151-152, 186-187; threats of, 147-151.

Ingersoll and Brother v. McCall, 258.

Injunctions, preliminary, 229-230.

Instinct of contrivance, 1-2.

Intellectual inquiry, 5-6.

Interferences, amount and expense of, 153-154, 195-196; definition, 24-25, 195; "dragnet" application, 154-155, 193-194, 195.

International Harvester Co., 98-99, 245.

Invalid patents, causes of, 185-186; incomplete examination, 185; disagreement of courts, 185-186; defective soliciting, 186; ignorance of other inventions, 186.

Invalidity of patents and claims, 184-186; extent, 184-185; causes, 185-186.

Invention, causes of, 1-16; instinct of contrivance, 1-2; reputation, 2-3; division of labor, 3-5; intellectual inquiry, 5-6; scientific progress, 6-8; divine inspiration, 8-9; accident, 9-10; economic conditions, 10-15; economic reward, 15-16.

Invention, desire to include subsequent, 193-194; discouragement of, 224-225, 249; inopportuneness of, 192-193; nature of, 218-219; retardation of, 103, 220-222.

Inventors, causes of disappointment of, 207-220; demerits of inventions and patents, 207-210; monopoly of patents, 210-213; unfair competition, 213-214; suppression of patents, 214-215; other evils of patent system, 215-216; lack of capital, 216-218; nature of invention, 218-219; characteristics of inventor, 219-220.

Inventors, characteristics of, 219-220; disappointment of, 206-223; employed by corporation, 73, 82; extent of failures of, 206-207; inadequate finances of, 167, 216-218; incompetence of, 167, 216-218, 244; independent, 71-73; public appreciation of, 248.

J

Justification of patents, 27-32; disclosure of inventions, 27-28; reward of inventor, 28-29; development of invention, 29-31; social welfare, 31-32; conclusion, 32-33.

K

Kaempffert, W., 155, 181, 182, 192, 193.

Keeler v. Standard Folding Bed Co., 145.

Kendall v. Winsor, 31-32.

Kimmel, G. P., 195.

Kohler Dye and Specialty Co., 260.

Krupps, The, 100-101.

L

La Follette report on gasoline, 1923, 60-61.

Law, salient features of present patent, 23-27; subject matter of patents, 23-24; application, 24-25; rights of patentee, 25; relation of patents to competition, 25-27.

Lawyers, higher standards of, 235-237: inefficient and unethical. 186, 198-202, 215, 242.

Learning, 6-8; commercialization of, 101-103.

Liefmann, Robert, 105.

Limitation of right to sue users of patented articles, 233.

Liquid door check, 46-49.

List, F., 29.

Litigation, causes, 182-189; expense, 72, 145-146, 181; extent, 145-146, 180-181; importance to public, 189; infringement, 147-153; prevention of, 71, 227-234; reduction in effective life of patent, 182.

Litigation, causes of, 182-189; number of patents and claims, 182-184; invalidity of patents and claims, 184-186; infringement suits without good faith, 186-187; conflict between Circuit Courts of Appeal, 187-188; other causes, 188-189.

Litigation, prevention of, 227-234; decrease in number of patents, 227; validity of patents, 227-229; assumption of validity of patents and preliminary injunction, 229-230; cumulative damages and costs, 230-231; Court of Patent Appeals, 231-233; suit for alleged infringement of patent only in one circuit, 233; limitation of right to sue users of patented article, 233; miscellaneous, 233-234.

Lock case, 164-165, 170.

M

Macfie, R. A., 225.

Machine, 23.

Macomber, W., 155, 187, 235.

Maintenance of re-sale prices, 135-145; Edison Phonograph Co. v. Pike, 135-136; Victor Talking Machine Co. v. The Fair, 136-138; New Jersey Patent Co. v. Weinberg, 138; Bauer & Co. v. O'Donnell, 138-141; Straus v. Victor Talking Machine Co., 141-144; Boston Store v. American Graphophone Co., 144-145; folding bed case, 145; criticism, 145.

Maintenance of re-sale prices, notices and contracts relating to, 258-260.

Manufacture, 23.

Marking, 25; false, 156-158.

Marks, G. C., 240.

Marshall, A., 176.

Martin, W., 19, 176, 225, 247.

Massachusetts, 19-20.

Mastick, S. C., 203.

Meade, E. S., 187.

Methods of acquiring patents, 69-70; consolidation of companies, 69-70; purchase of patent rights, 69-70.

Mill, John Stuart, 6, 28-29.

Milwaukee Rubber Works Co., 40-42.

Mimeograph case, 51, 89, 111, 112, 113-118, 131.

Modification of employer-employee contracts, 237.

Mond, R. L., 244.

Monopoly, continuity of, 204-205, 212-213; control of basic patent, 72, 167, 193, 210, 241; destruction of, 226-227; evils of, 101, 224; extent of, 34-159; legal questions concerning, 253; methods to attain, 34, 224; suppression and, 168-169.

Monopoly of patents, 210-213; control of basic patent, 210; patent trusts, 210-212; continuity of patent monopoly, 212-213.

Montague, G. H., 105.

Morgan Envelope Co. v. Albany Perforated Wrapping Paper Co., 109.

Motion Picture Patents Co., 35, 52-58, 89, 106, 107-109, 112, 118, 121-125; v. Universal Film Manufacturing Co., 89, 112, 118, 121-125.

N

National Association of Manufacturers, 189.

National Binding Co., 150.

National Cash Register Co., 100, 150, 152, 245.

National Harrow Co., 36-39, 43, 47, 51, 148-150, 169.
National Harrow Co. v. Bement, 36-37, 169.
National Harrow Co. v. Hench, 38-39, 47.
National Harrow Co. v. Quick, 38, 47.
National Phonograph Co. v. Schlegel, 117.
Nature of invention, 218-219.
New Departure Manufacturing Co., 35, 59-60, 150.
New Jersey Patent Co. v. Weinberg, 138.
New York, 21.
Nolan Hearings of 1919, 2, 7, 11-12, 13, 27, 73-74, 102, 145, 158, 168, 170, 180-181, 182, 185, 188, 189, 190, 191-192, 193, 196, 199-200, 201-202, 208, 216, 217-218, 221, 231, 246.
Nulomoline Co., 151.
Number of patents and claims, exemption from fees after issuance, 184; extent of, 182-183; insufficient number of examiners in Patent Office, 183; reduction in, 227; subject matter of patents, 183-184.

O

Oath, 24.
Obstructive Patents, 158, 177-178.
Oil Companies, 60-64.
Oldfield Hearings of 1912, 2, 3, 10, 27, 28, 30, 59, 72, 73, 99-100, 103, 138, 146, 151, 152, 153, 154, 155, 157, 159, 165, 173, 177, 180, 181, 185, 186-187, 194, 196, 200, 203, 206, 207-208, 211-212, 214, 215, 216, 217, 218, 220-221, 222, 228, 229, 230, 233, 235, 237, 241, 243, 244, 245.
Oldfield Hearings of 1914, 71, 98-99, 130, 152, 155, 187, 189, 195-197, 198, 233.
Oldfield Report of 1912, 26-27, 70, 71, 72, 127, 128, 146, 164, 216, 235.
Oldfield Report of 1914, 1.
Other evils of patent system, 180-205, 215-216; litigation, 180-189, 215-216; delay in granting patents, 189-198, 215; inefficient and unethical attorneys, 198-202, 215; unscrupulous promotion of patents, 202, 215; employer-employee contracts, 202-204, 215; continuation of monopoly after expiration of patent, 204-205; conclusion, 205.

P

Palgreave, R. H. I., 176, 178.
Paper bag case, 117, 162-164, 170.
Patent Congress of 1873, 28.
Patent Law Association of Washington, 26, 27, 243.
Patent Office, conditions in, 196; expeditious replies by applicant to, 234; former examiners of, 73-74; insufficient number of examiners in, 183; reduction in number of appeals in, 235.
Patents, Machinery's Reference Series, 16, 25, 159, 189, 203.
Patents Co.-Eastman Co. contract, 106-109.
Perry, J. S., 32, 35-36.
Petition, 24.
Petty, W., 209-210.
Piracy, 158-159.
Plant, T. G., 81-82, 83, 103, 170.
Pools, 34-68; sewing machine, 35-36; harrow, 36-39; seeded raisin, 39-40; rubber tire, 40-42; wind stacker, 43-46; liquid door check, 46-49; bath-tub, 49-52; motion pictures, 52-58; railway device, 59; coaster brake, 59-60; oil companies, 60-64; radio corporation, 64-68; defects, 68.
Postal Telegraph Co., 73.
Power of attorney, 24.
President's Commission, 19, 23, 154, 191.
Price, W. H., 16.
Prindle, E. J., 23-24, 72, 180, 181, 188, 193, 203, 221.
Product, improvement of, 71.

Projecting machine case, 89, 112, 118, 121-125.

Promotion of patents, unscrupulous, 202, 215.

Proposals for improvement of patent system, 226-249; destruction of patent trusts, 226-227; less litigation, 227-234; prevention of unfair competition, 234; less delay in granting patents, 234-235; higher standards of patent attorneys, 235-237; modification of employer-employee contracts, 237; fees, 237-240; compulsory working of patents, 240-246; royalty basis of remuneration, 246; expiration of basic and improvement patents at same time, 246; dedication of essential inventions to public use by government, 247; institution for development of inventions, 247-248; public appreciation of inventor, 248; effective publicity as to evils, 248-249.

Proudhon, P. J., 15, 223.

Publicity, of applications, 228; of evils of patent system, 248-249.

Pullman Car Co., 100.

Purchases and sales, monopolistic agreement concerning, 106-109.

Purchases of patent rights, 69-74, 210-212.

R

Radio Corporation, 64-68.

Railway device, 59.

Ravenshear, A. F., 16, 176, 183.

Reasons for acquiring patents, 70-71; elimination of competition, 70; utilization of old equipment, 70; basis of unfair competition, 70-71; improvement of product, 71; prevention of litigation, 71.

Records of Colony of Mass. Bay, 19.

Redding, W. A., 195.

Reid, W. F., 2.

Rejections, 183.

Remedies, 224-249; social cost of patent system, 224-225; demand for abolition of patents, 225-226; proposals for improvement of patent system, 226-249; conclusion, 249.

Replacement of old equipment, 167-168.

Reputation, 2-3.

Re-sale prices, maintenance of. *See* Maintenance of re-sale prices.

Revocation, 240-246.

Reward of inventor, 28-29.

Rhode Island, 20.

Richards, F. H., 159, 168.

Rights of patentee, 25.

Robinson, W. C., 177.

Rogers, W. F., 19, 114.

Royalties, forced, 156.

Royalty basis of remuneration, 241, 243, 246.

Rubber tire, 35, 40-42.

Rubber Tire Wheel Co., 35, 40-42; v. Milwaukee Rubber Works Co., 40-42.

Rules of Practice in Patent Office, 189, 198, 236.

Rumford v. Hygienic, 114.

S

Sanatogen case, 138-141, 144.

Scientific progress, 6-8.

Secrecy of invention, 186, 220, 221, 228-229, 242.

Seeded raisin, 39-40.

Selden patent, 147, 181, 192, 193.

Sewell, E. D., 16-17, 24, 186.

Sewing machine, 35-36.

Sherman Act, 34, 104, 226.

Shoe Manufacturers Alliance, 129-130.

Shuster, G., 176.

Singer Sewing Machine Co., 158, 245.

Smith, Adam, 3-4, 5, 30.

Social welfare, 31-32.

Soliciting, defective, 186.

Sources of patents, 71-74; independent inventor, 71-73; inventors employed by corporation, 73; former examiners of Patent Office, 73-74.

South Carolina, 21.
Specification, 24.
Standard Oil Co., 97-98.
Standard Oil Co. of Indiana, 60-64.
Standard Oil Co. of New Jersey, 60-64.
Standard Sanitary Manufacturing Co., 35, 51-52; v. United States, 51-52.
Statutes of U. S., 23.
Stevens, W. H. S., 105.
Straus v. American Publishers Association, 139.
Straus v. Victor Talking Machine Co., 141-144.
Subject matter of patents, 23-24, 183-184.
Suit for alleged infringement only in one circuit, 233.
Supplies, control of. *See* Control of complementary goods and Dictation of supplementary supplies.
Suppression, 160-179; legal right, 160-165; causes, 165-169; extent, 169-176; criticism, 177-179.
Suppression, causes of, 165-169; demerits of invention or patent, 165-167; inadequate finances, 167; incompetence of patent owner, 167; illegality of unauthorized use of improvement with basic invention, 167; expense of replacing old equipment, 167-168; attempt to secure industrial monopoly, 168-169.
Suppression, discouragement of inventors by, 214-215.
Suppression, extent of, 169-176; by Americans, 169-173; by foreigners, 173-176.
Suppression, legality of, 160-165; Hoe v. Knap, 160; Evart Manufacturing Co. v. Baldwin Cyclechain Co., 160-161; button-fastener case, 161; paper bag case, 162-164; lock case, 164-165.

T

Taft, W. H., 211, 230.
Tariff, protective, and patents, 31.
Tariff Commission, U. S., 175-176.
Taussig, F. W., 2, 217, 219.
Telepost Co., 73.
Texas Co., 60-64.
Thomas, E., 7, 9, 217.
Thompson, H., 6, 8, 219.
Thomson, H. C., 200.
Time of filing application as date of patent grant, 235.
Topliff v. Topliff, 198-199.
Toulmin, H. A., Jr., 27.
Trusts, patent, 34-104, 210-212; destruction of, 226-227.

U

Unfair Competition, 105-159; definition, 105; uncertainty of legal status, 106; monopolistic agreement concerning purchases and sales, 106-109; dictation of supplementary supplies, 109-127; control of complementary goods, 128-134; maintenance of re-sale prices, 135-145; litigation in the courts, 145-153; interference proceedings in the Patent Office, 153-155; forced validity of patents, 155-156; forced royalties, 156; false marking, 156-158; piracy, 158-159; economic waste, 159.
Unfair competition, basis of, 70-71; prevention of, 234.
Unfair competition, disappointment of inventor and, 213-214.
Uniformity in judicial interpretation, 229, 231-233.
United Shoe Machinery Co., 70-71, 79-85, 103, 106, 108, 126, 128-134, 155, 166, 169, 170, 211, 243, 245, 254-258.
United Shoe Machinery Co. v. La Chapelle, 82.
United States, history of patents in, 22-23.
United States Consolidated Seeded Raisin Co., 35, 39-40; v. Griffin and Skelly Co., 39-40.
United States v. American Can Co., 88-89.

United States v. American Can Co., petitioner's summary of evidence, 85-89.

United States v. American Tobacco Co., 51, 74.

United States v. Eastman Kodak Co., 90-92, 94-97, 108.

United States v. Eastman Kodak Co., decree of dissolution, government's brief and exhibits, 90-97, 107-108, 151-152, 155, 156.

United States v. Motion Picture Patents Co., 58.

United States v. Motion Picture Patents Co., government's brief and original petition, 52-57, 107-108.

United States v. New Departure Manufacturing Co., 59-60, 150.

United States v. Patterson, 150.

United States v. Standard Oil Co., etc., government's petition, 61-64.

United States v. Standard Sanitary Manufacturing Co., 49-51.

United States v. United Shoe Machinery Co., 79-81, 83, 85, 128-134.

United States v. United Shoe Machinery Co., government's brief, 79-82, 83, 130-131.

United States v. Winslow, 79-80, 84-85, 108.

Universal Film Manufacturing Co., 89, 112, 118, 121-125.

Usher, A. P., 11.

V

Validity of patents, 227-229; thorough examination of applications, 228; publicity of applications, 228; limited period in which to test, 228; fewer claims in each patent, 228; discouragement of secrecy of invention, 228-229; uniformity in judicial interpretation, 229.

Validity of patents, assumption of, 229-230; forced, 155-156.

Veblen, T., 2, 6-7, 15.

Victor Talking Machine Co., 136-138, 139, 141-144; v. The Fair, 136-138; Straus v., 141-144.

Virginia, 20-21.

W

Walker, F. A., 2, 12.

Waltham Watch Co., 139.

War Department, 100-101.

Waste of economic resources, 104, 159, 222-223, 224-225, 242, 249.

Western Union Telegraph Co., 73, 211-212.

Westinghouse Air Brake Co., 100.

Westinghouse Electric Co., 65-67, 99-100, 211, 245.

Wetmore, E., 196.

Whitney, J. A., 28.

Wilson v. Singer Manufacturing Co., 158.

Wind stacker, 35, 43-46, 169.

Working of patents, arguments for and against, 240-245; application to foreign patentees, 176, 245-246.

Y

Yale and Towne Manufacturing Co., 46-49, 164-165, 170.

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